



AP-3 Air Purge Spray & Pour Gun

Service Manual

Ref. # MN-04030

Revision 1.5

April 20, 2020



For use with non-flammable Foam and Polyurea
For professional use only
Not for use in explosive atmospheres



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Before installing the AP-3 Gun and start-up, carefully read all the technical and safety documentation included in this manual. Pay special attention to the information in order to know and understand the operation and the conditions of use of the AP-3 Gun. All of the information is aimed at improving user safety and avoiding possible breakdowns from the incorrect use of the AP-3 Gun.

WARRANTY

Polyurethane Machinery Corporation (hereinafter “PMC”) provides this **LIMITED WARRANTY** (hereinafter “Warranty”) to the original purchaser (hereinafter “Customer”) covering this equipment and the original PMC manufactured accessories delivered with the equipment (hereinafter “Product”) against defects in material or workmanship of the Product (hereinafter “Defect” or “Defective”) for a period of one (1) year from the date of first purchase as shown on the original PMC invoice (hereinafter “Warranty Period”).

If during the Warranty Period under normal use, the Product is suspected by Customer to be Defective in material or workmanship, it is Customer’s responsibility to contact PMC and return the Product to PMC as directed by PMC, freight prepaid. If PMC determines that the Product is Defective and that such Defect is covered by this Warranty, PMC will credit Customer for the reasonable freight charges incurred by Customer in returning the Defective Product to PMC, and PMC (or its authorized agent) will, at PMC’s option, repair or replace the Product, subject to the following:

Original Invoice: The original invoice must be kept as proof of the date of first sale and the Product serial number. The Warranty does not cover any Product if the Original Invoice appears to have been modified or altered, or when the serial number on the Product appears to have been altered or defaced.

Product Maintenance: It is the Customer’s responsibility to maintain the Product properly. See your maintenance schedule and owner’s manual for details. The Warranty does not cover an improperly maintained Product.

Non-PMC Components and Accessories: Non-PMC manufactured components and accessories that are used in the operation of the Product are not covered by this Warranty. Such components and accessories shall be subject to the warranty offered to the Customer, if any, by the original manufacturer of such component or accessory.

Other Warranty Exclusions: The Warranty does not cover any Product that PMC determines has been damaged or fails to operate properly due to misuse, negligence, abuse, carelessness, neglect, or accident. By way of example only, this includes:

- Normal wear and tear.
- Improper or unauthorized installation, repair, alteration, adjustment or modification of the Product.
- Use of heating devices, pumping equipment, dispensers, or other parts or accessories with the Product that have not been approved or manufactured by PMC.
- Failure to follow the operating instructions and recommendations provided by PMC may cause loss or damage to personnel, equipment, or work area.
- Fire, flood, “acts of God,” or other contingencies beyond the control of PMC.

THE WARRANTY DESCRIBED HEREIN IS THE EXCLUSIVE REMEDY FOR THE CUSTOMER AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, IMPLIED, STATUTORY OR OTHERWISE, AND THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND ALL OTHER WARRANTIES ARE HEREBY DISCLAIMED. TO THE FULLEST EXTENT PERMITTED BY LAW, PMC SHALL NOT BE RESPONSIBLE, WHETHER BASED IN CONTRACT, TORT (INCLUDING, WITHOUT LIMITATION, NEGLIGENCE), WARRANTY OR ANY OTHER LEGAL OR EQUITABLE GROUNDS, FOR ANY CONSEQUENTIAL, INDIRECT, INCIDENTAL, LOST PROFITS, SPECIAL, PUNITIVE OR EXEMPLARY DAMAGES, WHETHER TO PERSON OR PROPERTY, ARISING FROM OR RELATING TO THE PRODUCT, EVEN IF PMC HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH LOSSES OR DAMAGES.

Non-Warranty Service by PMC: If PMC determines that the suspected Defect of the Product is not covered by this Warranty, disposition of the Product will be made pursuant to the terms and conditions of PMC's written estimate on a time and materials basis.

Continuing Warranty for Products Repaired or Replaced under Warranty: Following the repair or replacement of a Product covered by this Warranty, such Product will continue to be subject to the original Warranty for the remainder of original Warranty Period or for three (3) months from the repair or replacement date, whichever is longer.

No Rights Implied: Nothing in the sale, lease or rental of any Product by PMC shall be construed to grant any right, interest or license in or under any patent, trademark, copyright, trade secret or other proprietary right or material owned by anyone; nor does PMC encourage the infringement of same.

Exclusive Warranty: This writing is the final, complete, and exclusive expression of the Warranty covering the Product. Any statements made by PMC, its employees or agents that differ from the terms of this Warranty shall have no effect. It is expressly understood that Customer's acceptance of this Warranty, by performance or otherwise, is upon and subject solely to the terms and conditions hereof, and any additional or different terms and conditions proposed or expressed by Customer or anyone, whether in writing or otherwise, are null and void unless specifically agreed to in writing by an Officer of PMC.

SAFETY AND HANDLING

This chapter contains important information on the safety, handling and use of your AP-3 Gun.



Before installing the AP-3 Gun and start-up, carefully read all the technical and safety documentation included in this manual. Pay special attention to the information in order to know and understand the operation and the conditions of use of the AP-3 Gun. All of the information is aimed at improving user safety and avoiding possible breakdowns from the incorrect use of the AP-3 Gun.

WARNING! Presents information to alert of a situation that might cause serious injuries if the instructions are not followed.

CAUTION! Presents information that indicates how to avoid damage to the AP-3 Gun or how to avoid a situation that could cause injuries.

NOTE! Is relevant information of a procedure being carried out.

Careful study of this Manual will enable the operator to know the characteristics of the Gun and the operating procedures. By following the instructions and recommendations contained, you will reduce the potential risk of accidents in the installation, use or maintenance of the AP-3 Gun; you will provide a better opportunity for incident-free operation for a longer time, greater productivity and the possibility of detecting and resolving problems fast and simply.

Keep this Service Manual for future reference to useful information. If you lose this Manual, ask for a new copy from your PMC Service Center or go to the company website (www.polymacusa.com).

The AP-3 Gun has been designed and built for the application of polyurea chemical systems, polyurethane foam chemical systems and some two-component epoxy systems.

WARNING! The design and configuration of the AP-3 Gun does not allow its use in potentially explosive atmospheres or exceeding the pressure and temperature limits described in the Technical Specifications of this Manual to be exceeded.

Always use liquids and solvents that are compatible with the AP-3 Gun. If in doubt, consult **PMC** Technical Service.

When working with the AP-3 Gun, it is recommended that the operator wear suitable clothing and elements of personal protection, including, without limitation, gloves, protective goggles, safety footwear and face masks. Use breathing equipment when working with the Gun in enclosed spaces or in areas with insufficient ventilation. The introduction and follow-up of safety measures must not be limited to those described in this Manual. Before beginning to work with the Gun, a comprehensive analysis must be made of the risks derived from the products to be dispensed, the type of application and the working environment.



To prevent possible injury caused by incorrect handling of the materials and solvents used in the process, carefully read the Safety Data Sheet (SDS) provided by your supplier.



To avoid damage caused by the impact of pressurized fluids, do not open any connection or perform maintenance work on components subject to pressure until the pressure has been completely eliminated.



Use suitable protection when operating, maintaining or being present in the area where the equipment is functioning. This includes, but is not limited to, the use of protective goggles, gloves, shoes and safety clothing and breathing equipment.

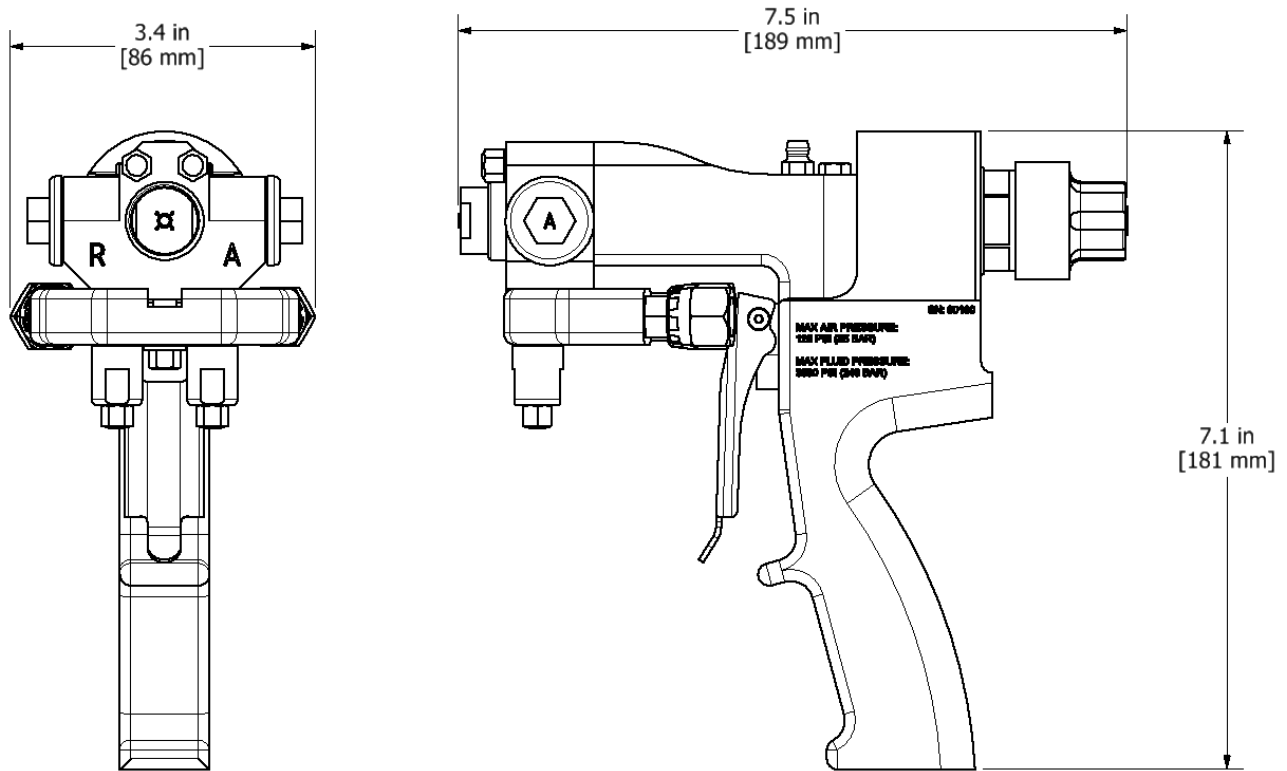


The equipment includes components that reach high temperatures and can cause burns. Hot parts of the equipment must not be handled or touched until they have cooled completely.



The equipment sprays high pressure fluids that can lead to fluid being injected under the skin or eyes. Severe injury could be incurred. Proper personal protective equipment should be used in conjunction with training and situational awareness of all personnel on the job.

CHARACTERISTICS

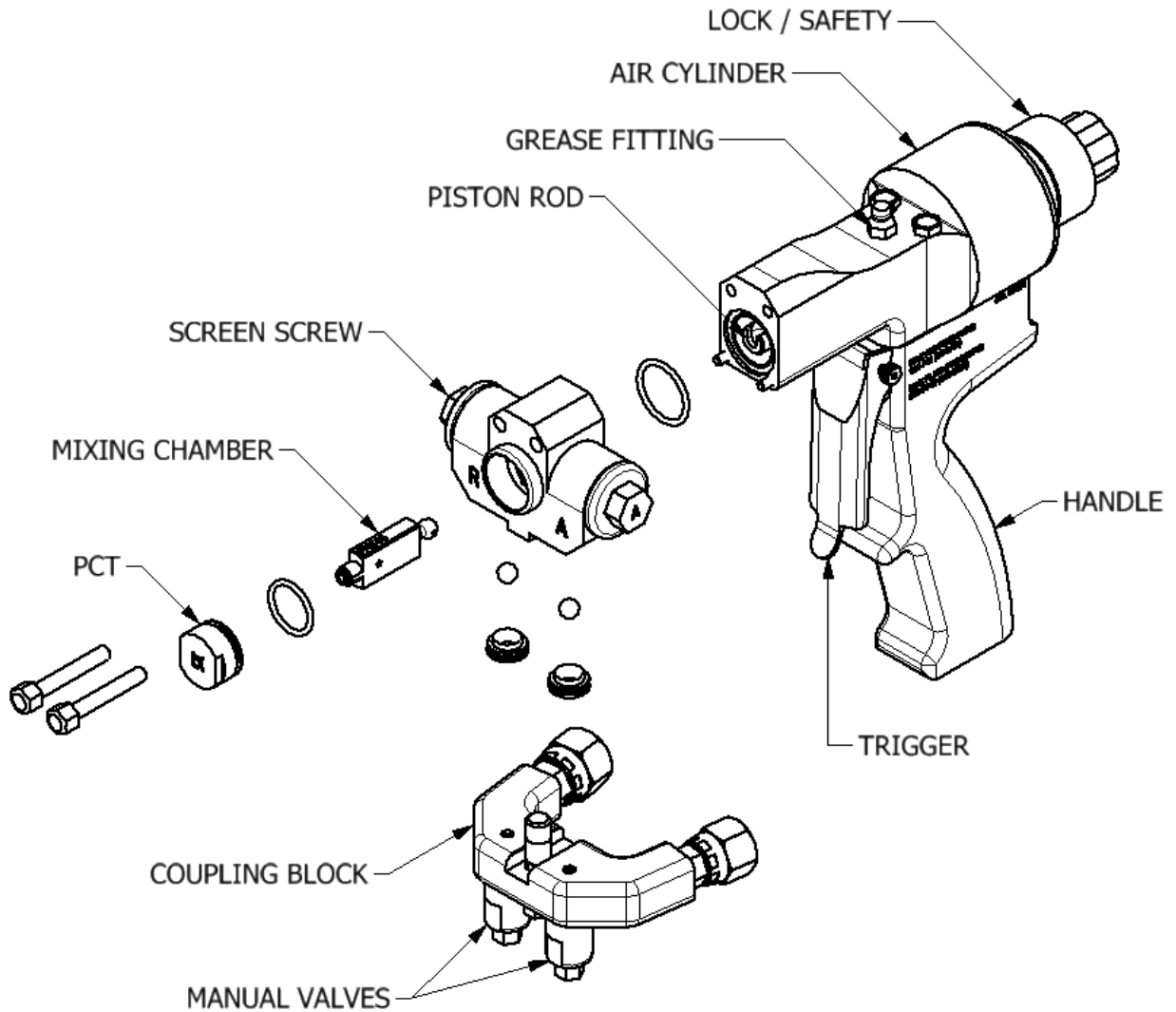


TECHNICAL SPECIFICATIONS

| | |
|--|--------------------------|
| Maximum Working Pressure: | 3,500 psi (245 Bar) |
| Air Pressure: | 90-125 psi (6.2-8.6 Bar) |
| Maximum Output (1:1 ratio): | 50 lb/min (22.7 L/min) |
| Minimum Output (1:1 ratio): | 3.3 lb/min (1.55 L/min) |
| Opening Force @ 110 psi (8 Bar): | 200 lb (91 kg) |
| Closing Force @ 110 psi (8 Bar): | 200 lb (91 kg) |
| Weight (Not including Coupling Block): | 2.4 lbs (1.1 kg) |
| Weight (Including Coupling Block): | 3.1 lbs (1.4 kg) |

GENERAL DESCRIPTION

For better knowledge of the **AP-3** Gun, the main components and their description are shown. For a more precise identification, see the Parts Identification section.



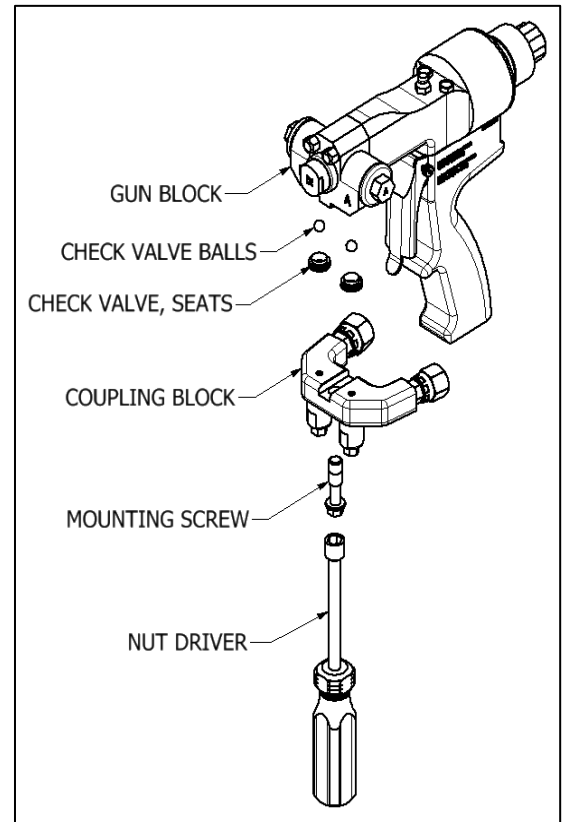
INSTALLATION AND START UP

CAUTION! When working with the AP-3 Gun or performing maintenance work, wear suitable safety protection in accordance with the recommendations and specifications provided by the product suppliers.

1. Install **Coupling Block** to the hose.
2. Ensure the **Manual Valves** are **CLOSED** by turning them to the full clockwise position.

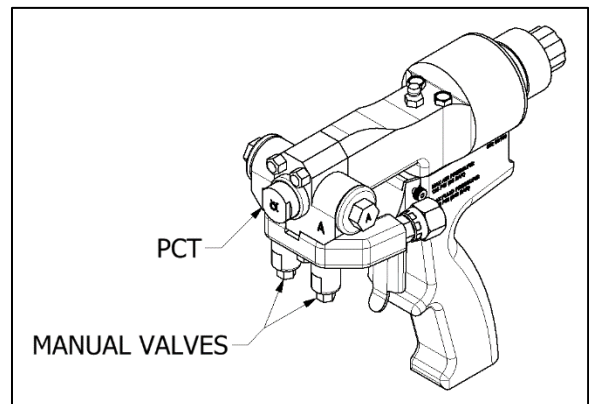
CAUTION! Excessive force closing or opening the Manual Valves may result in damage to the Manual Valves and/or Coupling Block.

3. Set the **Gun Lock** to the **LOCKED** position.
4. Ensure **Check Valve** Assemblies are properly installed in the Gun Block.
5. Connect the **Coupling Block** to the **Gun Block** using the **Nut Driver** provided (Pg. 42). Tighten **Coupling Block** until there is a hand tight seal.
6. Connect the air supply with 90 to 125 psi (6.2 to 8.6 bar) to the gun.



NOTE! The material delivery hoses are color coded Red and Blue. The Red corresponds to the Isocyanate (A) and the Blue to the Polyol (R). To avoid connection errors, the (A) and (R) hoses have connections with different sizes to avoid incorrect connections. [Set the **Gun Lock** to the **OPEN** position.]

7. Pull the **Trigger** several times to check for correct movement of the **Mixing Chamber** and **PCT**.
8. Ensure the Proportioner and supply system are in the ready position and the material pressures and temperatures are set as recommended by the chemical supplier (see Machine Service Manual).
9. **OPEN** each **Manual Valve** by turning three (3) full turns counter clockwise.
10. **Perform a test spray.**



SHUTDOWN PROCEDURES

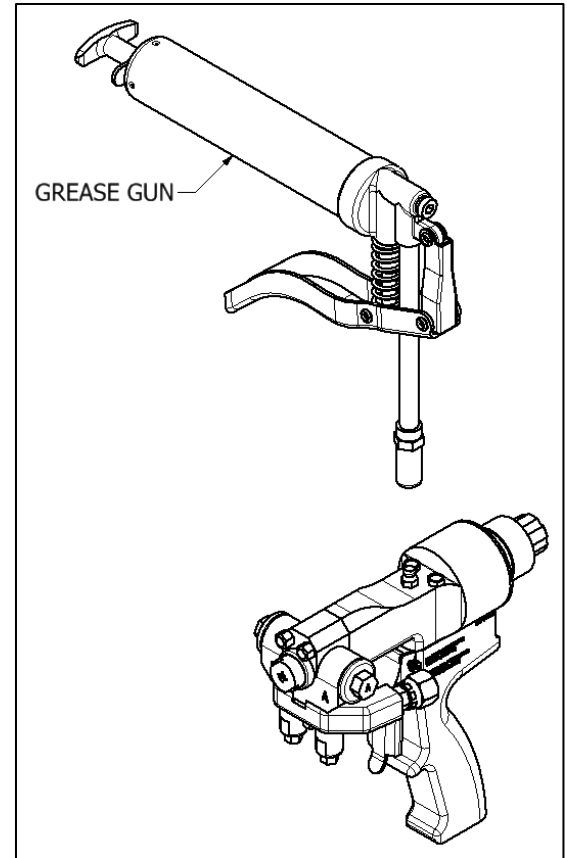
1. CLOSE the **Manual Valves** by turning them to the full clockwise position.

CAUTION! *Excessive force closing or opening Manual Valves may result in damage to the Manual Valves and/or Coupling Block.*

2. Using the supplied **Grease Gun** (Pg. 42), lubricate the **Mixing Chamber** through the **Grease Fitting** until a fine mist of grease is sprayed from the gun (Pg. 43 for Grease Gun Assembly Instructions). This action will help prevent Isocyanate from crystallizing on the mixing chamber which may cause damage to the internal parts.

NOTE! *The injection of grease supplied with the Gun at the end of the day will minimize maintenance time and can eliminate the need to remove the Mixing Chamber each day to clean it. Use of grease with high moisture content will not achieve the desired results. PMC Grease is recommended. Use of incorrect grease will cause blockage in the mixing chamber.*

3. Disconnect the air supply.



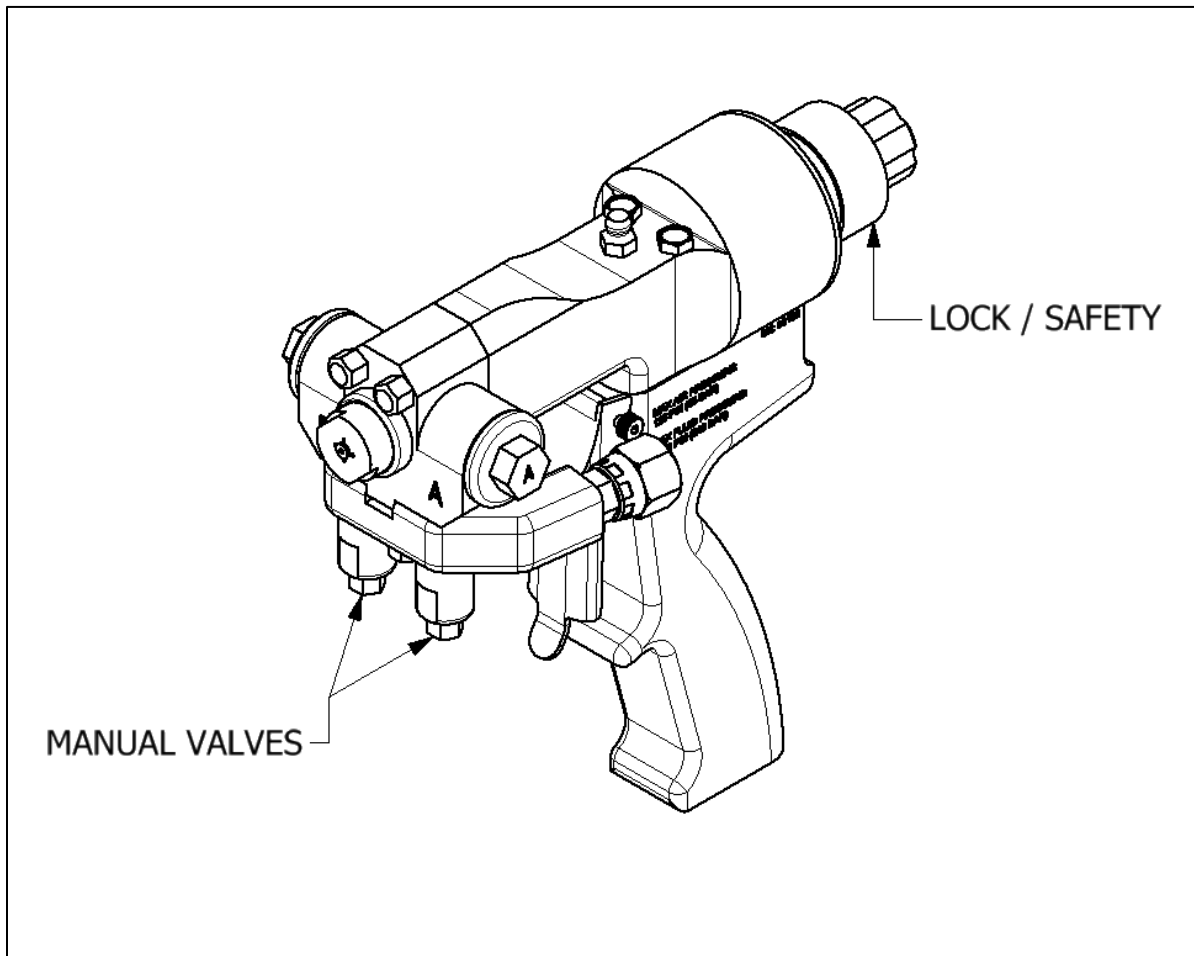
LOSS OF AIR PRESSURE/EMERGENCY SHUT-OFF

1. **SHUT OFF** air supply to gun.
2. Using the palm of your hand, push in on the **Gun Lock** and rotate clockwise to set it to the **LOCKED** position.
3. **CLOSE** each **Manual Valve**.

CAUTION! *Excessive force closing or opening Manual Valves may result in damage to the Manual Valves and/or Coupling Block.*

MAINTENANCE

To obtain maximum performance from your **AP-3** Gun, it is necessary to periodically perform certain maintenance operations.



WARNING! Before proceeding with any maintenance work on the AP-3 Gun, trigger the gun to remove internal material pressure, ensure the Manual Valves are **CLOSED**, ensure the Gun Lock is in the **LOCKED** position, and **SHUT OFF/DISCONNECT** the air supply. It is recommended to remove the Gun from the Coupling Block.



To prevent possible injury caused by incorrect handling of the materials and solvents used in the process, carefully read the Safety Data Sheet (SDS) provided by your supplier.



To avoid damage caused by the impact of pressurized fluids, do not open any connection or perform maintenance work on components subject to pressure until the pressure has been completely eliminated.



Use suitable protection when operating, maintaining or being present in the area where the equipment is functioning. This includes, but is not limited to, the use of protective goggles, gloves, shoes and safety clothing and breathing equipment.

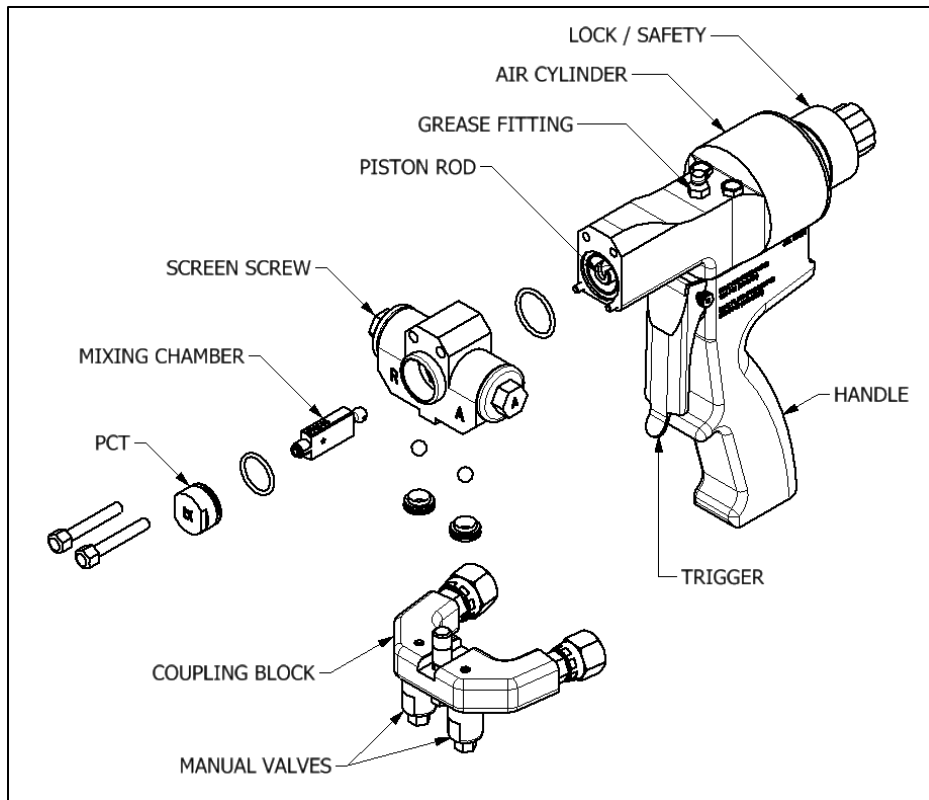


The equipment includes components that reach high temperatures and can cause burns. Hot parts of the equipment must not be handled or touched until they have cooled completely.



The equipment sprays high pressure fluids that can lead to fluid being injected under the skin or eyes. Severe injury could be incurred. Proper personal protective equipment should be used in conjunction with training and situational awareness of all personnel on the job.

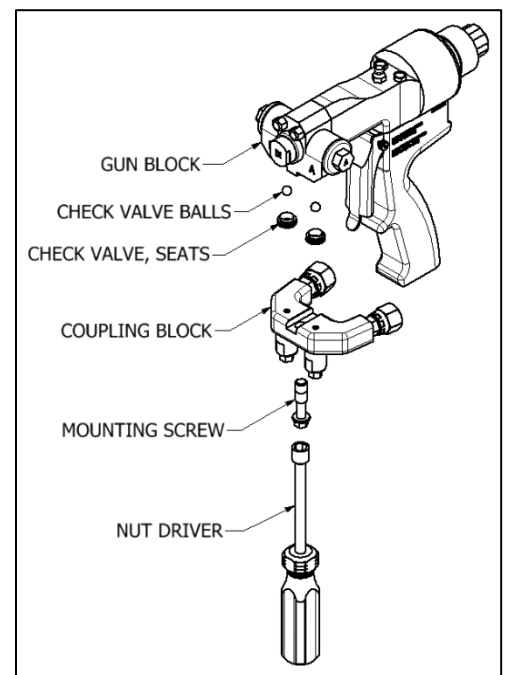
GUN BLOCK AND MIXING CHAMBER REMOVAL



1. **CLOSE** the **Manual Valves** by turning them to the full clockwise position.

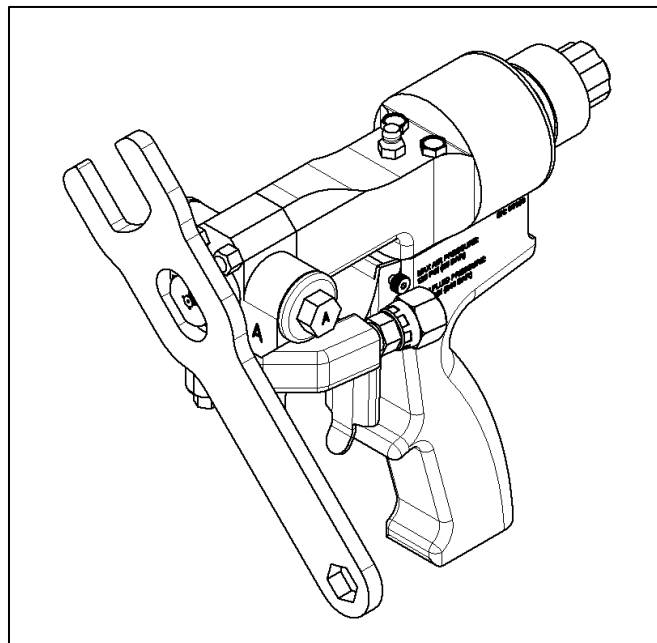
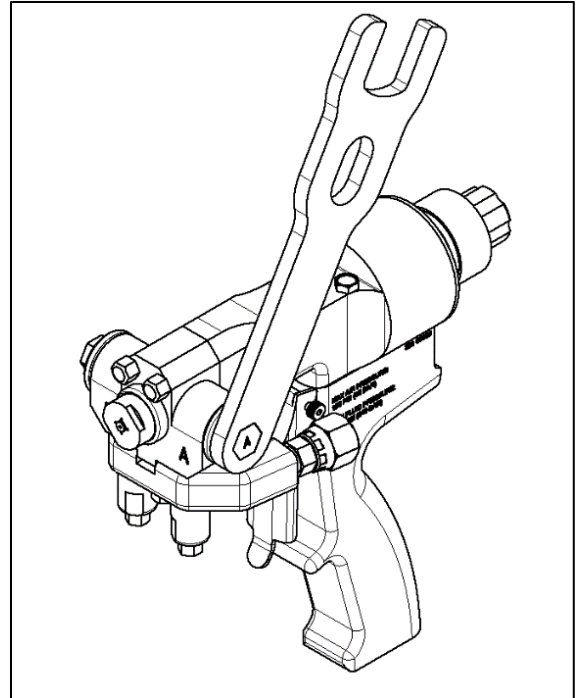
CAUTION! Excessive force opening or closing **Manual Valves** may result in damage to the **Manual Valves** and/or **Coupling Block**.

2. Point the gun over a waste container and pull the **Trigger** to relieve pressure.
3. Using the **Nut Driver** provided (Pg. 42), remove the **Coupling Block** from the **Gun Block**.
4. Flush the Gun Block to remove any residue. Use the recommended Flush Tank (Pg. 34)
5. Shut off air to the gun.
6. Using the **Wrench** provided (Pg. 42) or a 1/2" wrench, loosen or remove both **Screen Screws** to facilitate easy removal of the **Mixing Chamber**, as shown below.



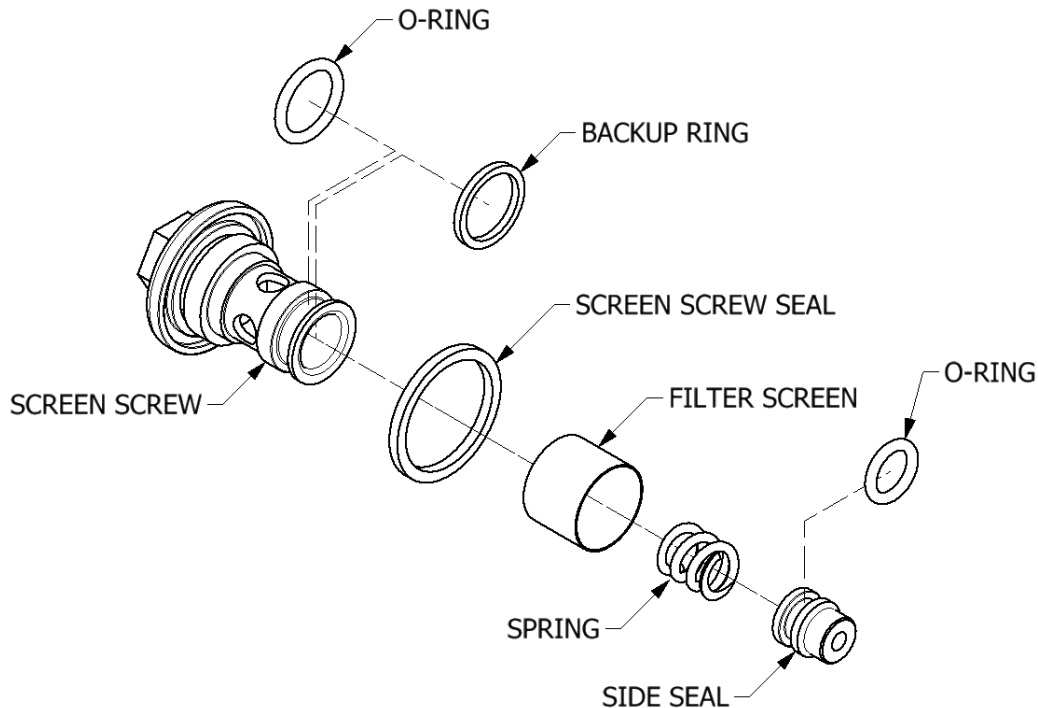
7. Loosen the PCT, but do not remove.
8. Using the Nut Driver (Pg. 42) provided, remove the gun block screws mounting screws. (see page 6, item O)
9. Disconnect the Gun Block from the Cylinder.
10. Remove the Mixing Chamber and PCT from the Gun Block.
11. Clean or replace the **Mixing Chamber** as required.
12. When reassembling in reverse order, it is recommended to screw the **PCT** onto the **Mixing Chamber** first, then insert the **Mixing Chamber** into the front of the **Gun Block**. This helps to reduce wear on the **PCT O-ring**.

NOTE! *A small amount of PMC grease applied to the Mixing Chamber and Side Seals upon assembly is recommended.*



CAUTION! *Use wooden or plastic tools or a brass brush for cleaning. Do not use metal or abrasive tools that can scratch or damage the contact surfaces.*

SCREEN SCREW AND COMPONENT MAINTENANCE



CAUTION! To avoid possible contamination by the residual chemical inside the Gun do not interchange the Isocyanate (A) parts with the Polyol (R) parts. The Isocyanate (A) side is identified with an (A) on the Screen Screw Head and the Polyol (R) side is marked with an (R) on the Screen Screw Head. The Gun Block is also marked with (A) and (R) designation.

1. CLOSE the Manual Valves by turning them to the full clockwise position.

CAUTION! Excessive force opening or closing Manual Valves may result in damage to the Manual Valves and/or Coupling Block.

2. Point the gun over a waste container and pull the Trigger to relieve pressure.
3. Using the Nut Driver provided (Pg. 35), remove the Coupling Block from the Gun Block.
4. Flush the gun block to remove any residue. Use the recommended Flush Tank (Pg. 34)
5. SHUT OFF air supply to the gun.
6. Set the Gun Lock to the LOCKED position.

7. Use the **Wrench** provided (Pg. 42) or a ½” wrench to remove the **Screen Screw**.
8. To clean or replace the **Screens**, remove the larger **O-Ring** and **Back Up Ring**.
9. Remove the **Side Seal** and **Spring** from the **Screen Screw**. Inspect all components and O-rings. Clean or replace as required.
10. Inspect for damage and apply PMC lubrication to all O-rings and threads and reassemble in reverse order.
11. The gun is now ready for service.

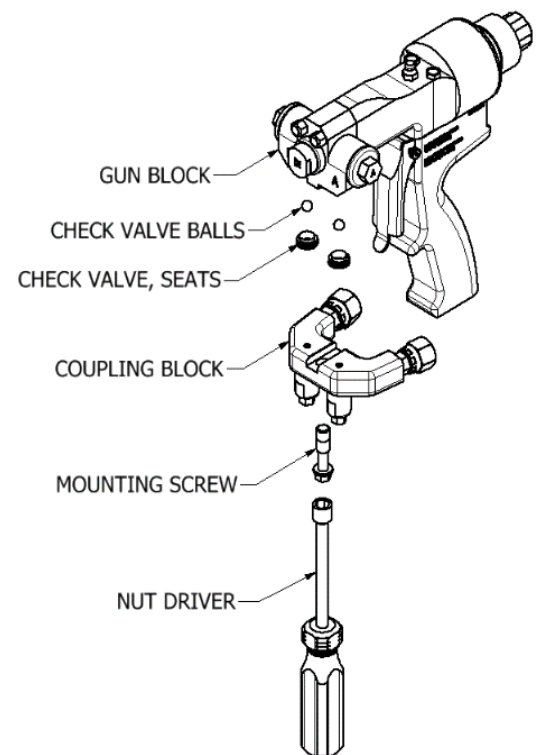
NOTE! When replacing O-rings, replace ALL O-rings included in the appropriate Kit.

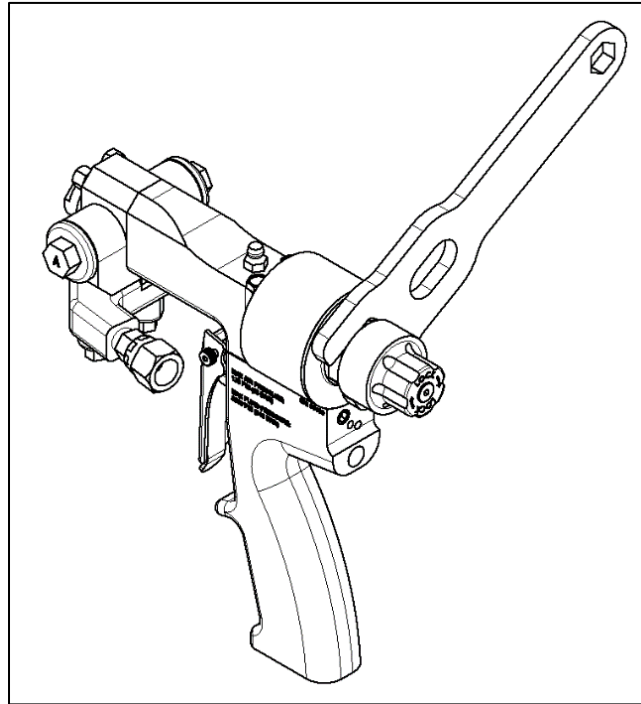
AIR CYLINDER MAINTENANCE

1. **CLOSE** the **Manual Valves** by turning them to the full clockwise position.

CAUTION! Excessive force opening or closing Manual Valves may result in damage to the Manual Valves and/or Coupling Block.

2. Point the gun over a waste container and pull the **Trigger** to relieve pressure.
3. **DISCONNECT** air supply to gun.
4. Set the **Gun Lock** to the **LOCKED** position.
5. Flush the gun block to remove any residue. Use the recommended Flush Tank (Pg. 34)
6. Loosen the **Screen Screws** using the **Wrench** provided (Pg. 42) a ½” wrench.
7. Disconnect **Coupling Block** from **Gun Block** using the **Nut Driver** provided (Pg. 42).





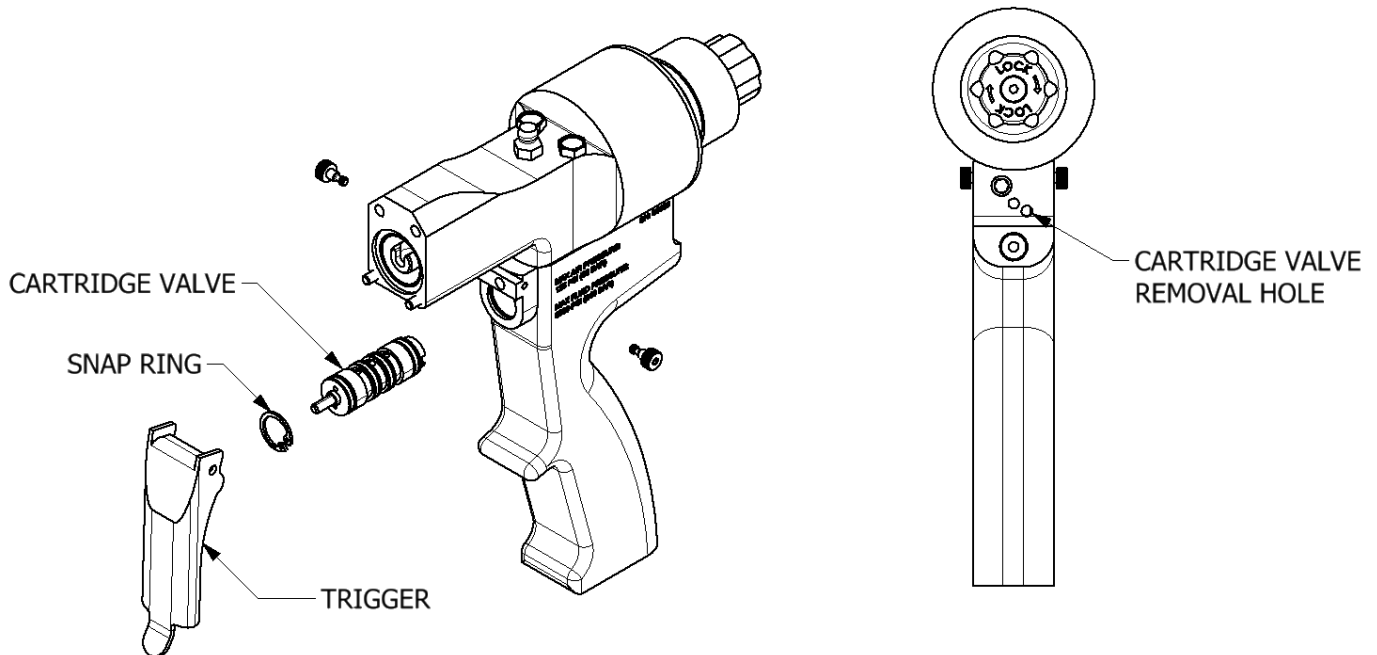
8. Using the Nut Driver provided, remove the gun block mounting screws and disconnect the Gun Block.
9. Using an 11/16" Wrench, remove the **End Cap**.
10. Push on the front of the **Piston** to remove the **Piston** from the rear of the **Air Cylinder**.
11. Inspect the **O-rings** on the **Piston** and **Shaft** and replace as required.
12. Inspect the **O-ring** on the **End Cap** and replace as required.

NOTE! When replacing O-rings, replace ALL O-rings included in the Rebuild Kit.

13. Coat the inside of the **Cylinder** and all **O-rings** with PMC grease to facilitate reassembly.
14. Reassemble the **Air Cylinder** in reverse order.

CAUTION! Use wooden or plastic tools or a brass brush for cleaning. Do not use metal or abrasive tools that can scratch the contact surfaces.

CARTRIDGE VALVE REMOVAL



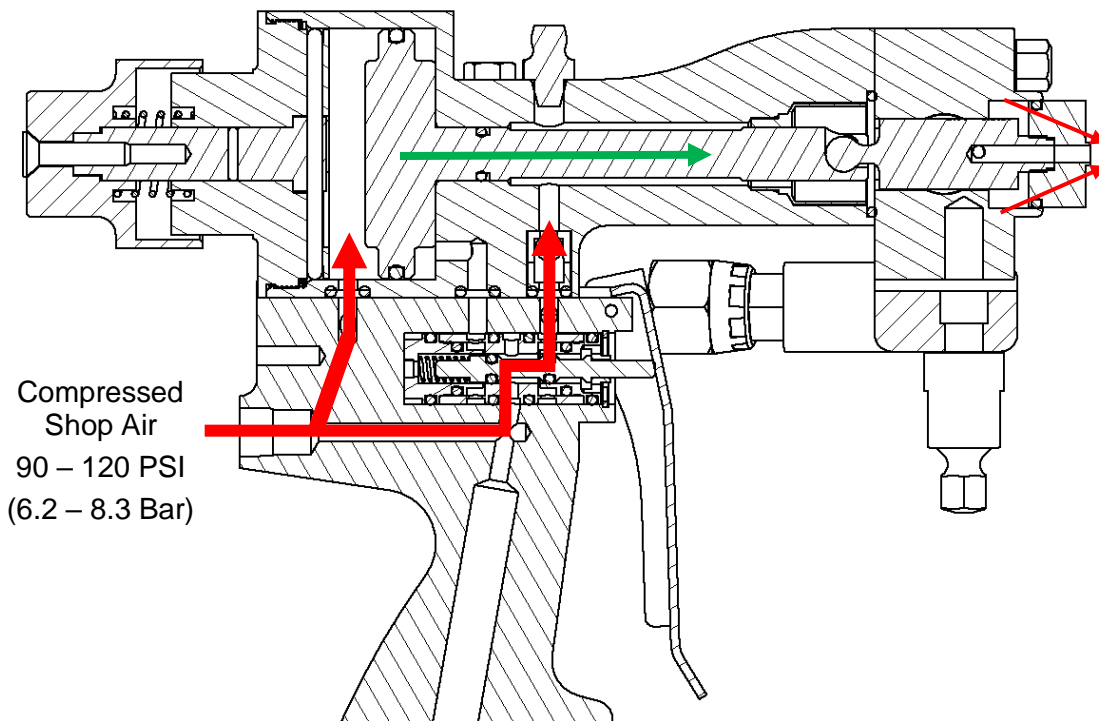
1. Remove the trigger from the handle.
2. Remove the Snap Ring from in front of the Cartridge Valve.
3. Eject the Cartridge Valve by pushing it out through the hole indicated by the arrow above

WARNING! It is very important to remove the cartridge valve before cleaning the gun with any type of solvent. If the cartridge valve is soaked in solvent its internal O-Rings could be damaged and it will no longer function properly. If the cartridge valve is compromised the trigger will not respond correctly which could lead to severe gun malfunction. If you are experiencing inconsistent trigger behavior, consider replacing the cartridge valve.

GUN OPERATION

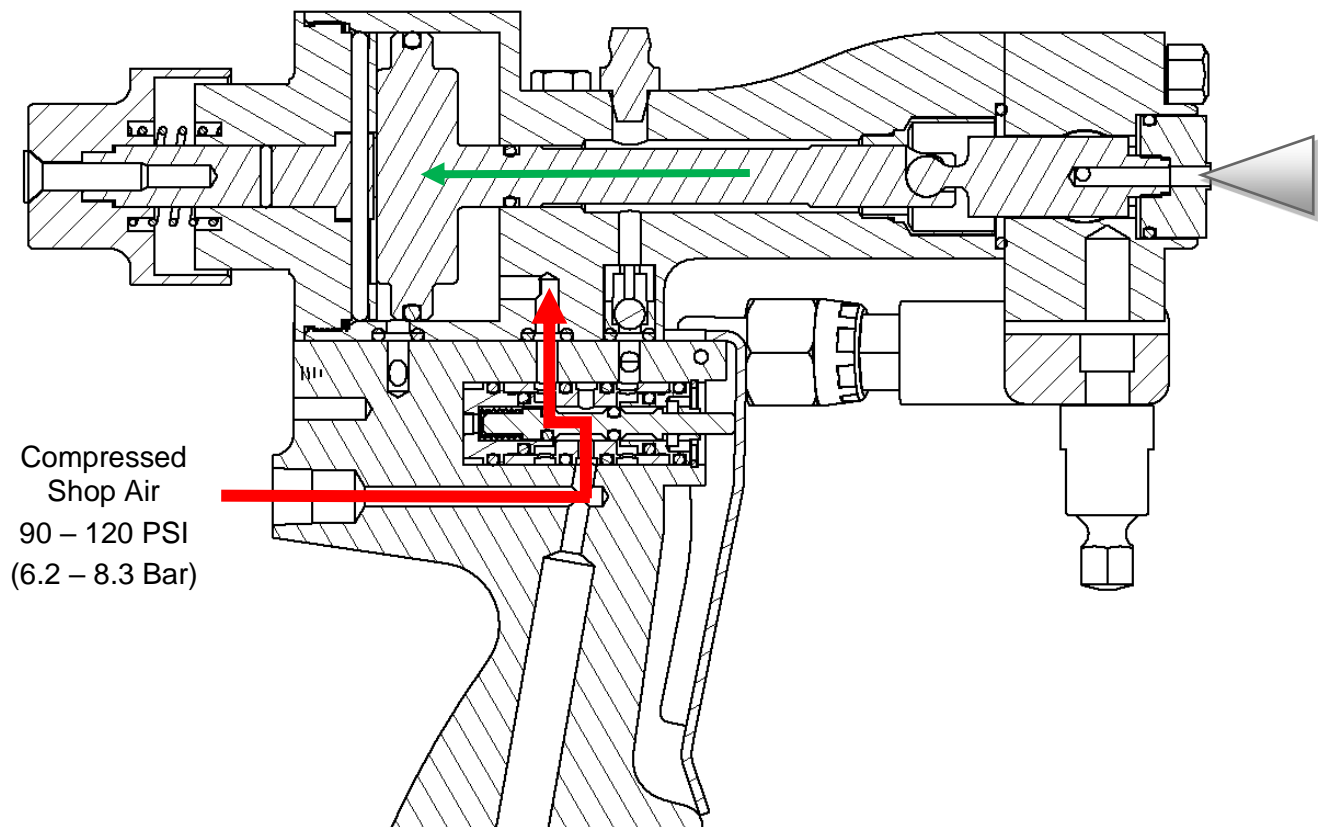
TRIGGERED OFF

1. Compressed **dry air** enters through the rear or bottom of the Gun Handle.



2. The air is directed through the cartridge valve and into the Rear of the Piston in the Air Cylinder, moving the Piston (and Mixing Chamber) forward to the **CLOSED** position.
3. In the **CLOSED** position, the orifices in the Mixing Chamber are **NOT** aligned with the Side Seal ports. The orifices in the Mixing Chamber are exposed to the air/grease chamber in the Gun Block.
4. Purge air passes through the Spool Valve and the Check Valve, and into the Air Cylinder and Gun Block.
5. Purge air and residual grease enter the Mixing Chamber and pass through the Mixing Chamber and PCT, expelling mixed material out of the chamber area in the process.
6. Purge air is also expelled from the PCT in a circular trajectory to keep the tip clean.

TRIGGERED ON




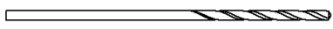




1. Compressed **dry air** is directed through the cartridge valve and into the front, filling the cavity and pushing the Piston and Chamber backwards.
2. The orifices in the Chamber are now aligned with the Side Seals and exposed to high pressure chemical.
3. High pressure chemical enters the chamber from the opposing orifices. The high pressure chemicals mix by impingement, and the mixture then travels down the chamber and out the PCT.



















NOTE! While the trigger is pulled, the purge air is shutoff during spraying and the PCT will be retracted to the point of being flush with the front surface of the Gun Block.






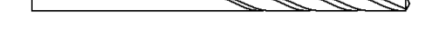

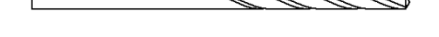
TROUBLESHOOTING GUIDE






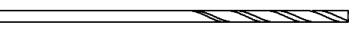
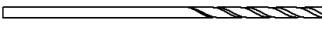

| PROBLEM | POSSIBLE CAUSE | SOLUTION |
|--|--|--|
| PCT not flush with Gun Block when Gun is triggered | Insufficient air pressure (minimum 90 psi, 6.2 bar) | Ensure 90 psi (6.2 Bar) |
| | Failed cartridge valve | Replace, see page 16 |
| | Air Passages plugged | Clean, See page 17-18 |
| Material does not spray when Gun is triggered | Lock is in "Locked" position | Unlock gun |
| | Air supply is not on | Turn on air supply |
| | Manual Valve CLOSED | OPEN, see page 7 |
| | Mixing Chamber Inlet Orifices plugged | Clean, see page 11 |
| | Side Seal Orifices plugged | Clean, see page 13 |
| | Check Valve plugged | Replace |
| Mixing Chamber moves slowly | Failed Cartridge Valve | Replace, see page 17 |
| | Insufficient Gun air pressure (minimum 90 psi, 6.2 Bar) | Ensure 90 psi (6.2 Bar) of air pressure |
| | Piston Assembly requires service | Rebuild, see page 14 |
| | Air Passages plugged | Clean, see page 17-18 |
| Mixing Chamber moves slowly, then normally | Reacted material around Side Seals | Inspect Side Seals, Mixing Chamber and clean, see pages 11, 13 |
| Pattern deformation | Incorrect chemical temperature | See Proportioner Manual |
| | Mixing Chamber Nozzle and/or PCT dirty | Inspect and clean |
| Material spray pressure imbalance | Mixing Chamber Inlet Orifices plugged | Clean |
| | Side Seal Orifices plugged | Clean, see page 13 |
| | Dirty screens | Replace |
| | Material temperatures not as recommended by material supplier | Adjust, see Proportioner Operating Manual |
| Iso and/or Resin in Gun Air Passages | Side Seal damaged | Replace, see page 13 |
| | Mixing Chamber damaged | Replace, see page 11 |
| | Side Seal/ Screen Screw O-rings damaged | Replace, see page 13 |
| Material mist from Mixing Chamber or PCT | Side Seal damaged | Replace, see page 13 |
| | Mixing Chamber damaged | Replace, see page 11 |
| | Side Seal/Screen Screw O-rings damaged | Replace, see page 13 |
| Excessive overspray | Material temperatures and/or spray pressures not as recommended by material supplier | Adjust, see Proportioner Operating Manual |
| Buildup of material on PCT | Plugged air passages in PCT and Gun Block | Clean, see page 11 |
| Air leakage from Handle | Air Cylinder O-rings damaged | Replace, see page 40 |
| | Cartridge Valve Damaged | Replace, see page 16 |















REFERENCE GUIDE

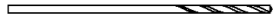
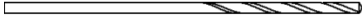






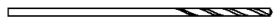
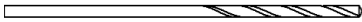






| CHAMBER KITS | | | | | |
|---------------------|--------------------|------------|---------------------------|---------------------|---|
| KIT NUMBER | PART NUMBER | QTY | DESCRIPTION (INCH) | FOR USE WITH | ILLUSTRATION |
| GU-814-000 | 200476 | 1 | #63 DRILL (.0370) | MIXING NOZZLE |  |
| | GU-03031 | 1 | #70 DRILL (.0280) | MIXING CHAMBER PORT |  |
| | RM-814-000 | 1 | CHAMBER #000 | - | - |
| GU-814-DP-000 | 200476 | 1 | #63 DRILL (.0370) | MIXING NOZZLE |  |
| | GU-03031 | 1 | #70 DRILL (.0280) | MIXING CHAMBER PORT |  |
| | RM-814-DP-000 | 1 | CHAMBER #000 | - | DIAMOND PLATED |
| GU-814-00 | 200477 | 1 | 1.25mm DRILL (.0492) | MIXING NOZZLE |  |
| | GU-03027 | 1 | #69 DRILL (.0292) | MIXING CHAMBER PORT |  |
| | RM-814-00 | 1 | CHAMBER #00 | - | - |
| GU-814-DP-00 | 200477 | 1 | 1.25mm DRILL (.0492) | MIXING NOZZLE |  |
| | GU-03027 | 1 | #69 DRILL (.0292) | MIXING CHAMBER PORT |  |
| | RM-814-DP-00 | 1 | CHAMBER #00 | - | DIAMOND PLATED |
| GU-814-00X | 200478 | 1 | 1.35mm DRILL (.0531) | MIXING NOZZLE |  |
| | GU-03032 | 1 | #61 DRILL (.0390) | MIXING CHAMBER PORT |  |
| | RM-814-00X | 1 | CHAMBER #00X | - | - |
| GU-814-DP-00X | 200478 | 1 | 1.35mm DRILL (.0531) | MIXING NOZZLE |  |
| | GU-03032 | 1 | #61 DRILL (.0390) | MIXING CHAMBER PORT |  |
| | RM-814-DP-00X | 1 | CHAMBER #00X | - | DIAMOND PLATED |
| GU-814-01 | 200479 | 1 | 1.45mm DRILL (.0571) | MIXING NOZZLE |  |
| | GU-03021 | 1 | #59 DRILL (.0410) | MIXING CHAMBER PORT |  |
| | RM-814-01 | 1 | CHAMBER #01 | - | - |

| CHAMBER KITS (CONTINUED) | | | | | |
|---------------------------------|---------------|---|----------------------|---------------------|---|
| GU-814-DP-01 | 200479 | 1 | 1.45mm DRILL (.0571) | MIXING NOZZLE |  |
| | GU-03021 | 1 | #59 DRILL (.0410) | MIXING CHAMBER PORT |  |
| | RM-814-DP-01 | 1 | CHAMBER #01 | - | DIAMOND PLATED |
| GU-814-01X | GU-03053 | 1 | #52 DRILL (.0635) | MIXING NOZZLE |  |
| | GU-03052 | 1 | #57 DRILL (.0430) | MIXING CHAMBER PORT |  |
| | RM-814-01X | 1 | CHAMBER #01X | - | - |
| GU-814-DP-01X | GU-03053 | 1 | #52 DRILL (.0635) | MIXING NOZZLE |  |
| | GU-03052 | 1 | #57 DRILL (.0430) | MIXING CHAMBER PORT |  |
| | RM-814-DP-01X | 1 | CHAMBER #01X | - | DIAMOND PLATED |
| GU-814-02 | GU-03024 | 1 | #51 DRILL (.0676) | MIXING NOZZLE |  |
| | GU-03023 | 1 | #56 DRILL (.0465) | MIXING CHAMBER PORT |  |
| | RM-814-02 | 1 | CHAMBER #02 | - | - |
| GU-814-DP-02 | GU-03024 | 1 | #51 DRILL (.0676) | MIXING NOZZLE |  |
| | GU-03023 | 1 | #56 DRILL (.0465) | MIXING CHAMBER PORT |  |
| | RM-814-DP-02 | 1 | CHAMBER #02 | - | DIAMOND PLATED |
| GU-814-02X | 200480 | 1 | 2mm DRILL (.0787) | MIXING NOZZLE |  |
| | GU-03050 | 1 | #55 DRILL (.0520) | MIXING CHAMBER PORT |  |
| | RM-814-02X | 1 | CHAMBER #02X | - | - |
| GU-814-DP-02X | 200480 | 1 | 2mm DRILL (.0787) | MIXING NOZZLE |  |
| | GU-03050 | 1 | #55 DRILL (.0520) | MIXING CHAMBER PORT |  |
| | RM-814-DP-02X | 1 | CHAMBER #02X | - | DIAMOND PLATED |
| GU-814-03 | GU-03028 | 1 | #44 DRILL (.0860) | MIXING NOZZLE |  |
| | GU-03035 | 1 | #54 DRILL (.055) | MIXING CHAMBER PORT |  |
| | RM-814-03 | 1 | CHAMBER #03 | - | - |
| GU-814-DP-03 | GU-03028 | 1 | #44 DRILL (.0860) | MIXING NOZZLE |  |
| | GU-03035 | 1 | #54 DRILL (.055) | MIXING CHAMBER PORT |  |
| | RM-814-DP-03 | 1 | CHAMBER #03 | - | DIAMOND PLATED |

| CHAMBER KITS (CONTINUED) | | | | | |
|---------------------------------|--------------|---|---------------------|---------------------|--|
| GU-814-04 | 200481 | 1 | 2.4mm DRILL (.0945) | MIXING NOZZLE |  |
| | GU-03054 | 1 | #50 DRILL (.0700) | MIXING CHAMBER PORT |  |
| | RM-814-04 | 1 | CHAMBER #04 | - | - |
| GU-814-DP-04 | 200481 | 1 | 2.4mm DRILL (.0945) | MIXING NOZZLE |  |
| | GU-03054 | 1 | #50 DRILL (.0700) | MIXING CHAMBER PORT |  |
| | RM-814-DP-04 | 1 | CHAMBER #04 | - | DIAMOND PLATED |
| 200920 | GU-03028 | 1 | #44 Drill (.0860) | MIXING NOZZLE |  |
| | 201120 | 1 | #33 DRILL (0.1130) | MIXING CHAMBER PORT |  |
| | RM-814-05 | 1 | CHAMBER #05 | - | - |
| GU-814-DP-05 | GU-03028 | 1 | #44 Drill (.0860) | MIXING NOZZLE |  |
| | 201120 | 1 | #33 DRILL (0.1130) | MIXING CHAMBER PORT |  |
| | RM-814-DP-05 | 1 | CHAMBER #05 | - | DIAMOND PLATED |

| PCT KITS | | | | | |
|-----------------|-------------|-----|-------------------------|-----------------|---|
| KIT NUMBER | PART NUMBER | QTY | DESCRIPTION | FOR USE WITH | ILLUSTRATION |
| GU-815-000 | GU-03033 | 1 | #65 DRILL (.0350) | PCT PURGE PORT |  |
| | GU-03035 | 1 | #54 DRILL (.055) | PCT PURGE PORT |  |
| | 2000476 | 1 | #63 DRILL (.0370) | PCT NOZZLE PORT |  |
| | OR-00042A | 2 | O-RING, VITON, -016 | - | - |
| | RM-815-000 | 1 | PATTERN CONTROL TIP 000 | - |  |
| GU-815-00 | GU-03033 | 1 | #65 DRILL (.0350) | PCT PURGE PORT |  |
| | GU-03035 | 1 | #54 DRILL (.055) | PCT PURGE PORT |  |
| | 200477 | 1 | 1.25mm DRILL (.0492) | PCT NOZZLE PORT |  |
| | OR-00042A | 2 | O-RING, VITON, -016 | - | - |
| | RM-815-00 | 1 | PATTERN CONTROL TIP 00 | - |  |

| PCT KITS (CONTINUED) | | | | | |
|-----------------------------|------------|---|--------------------------|---------------------------|---|
| GU-815-00X | GU-03033 | 1 | #65 DRILL (.0350) | PCT PURGE PORT |  |
| | 200478 | 1 | 1.35mm DRILL (.0531) | PCT PURGE AND NOZZLE PORT |  |
| | OR-00042A | 2 | O-RING, VITON, -016 | - | |
| | RM-815-00X | 1 | PATTERN CONTROL TIP 00.X | - |  |
| GU-815-01 | GU-03033 | 1 | #65 DRILL (.0350) | PCT PURGE PORT |  |
| | 200479 | 1 | 1.45mm DRILL (.0571) | PCT PURGE & NOZZLE PORT |  |
| | OR-00042A | 2 | O-RING, VITON, -016 | - | |
| | RM-815-01 | 1 | PATTERN CONTROL TIP 01 | - |  |
| GU-815-01X | GU-03033 | 1 | #65 DRILL (.0350) | PCT PURGE PORT |  |
| | GU-03035 | 1 | #54 DRILL (.055) | PCT PURGE PORT |  |
| | GU-03053 | 1 | #52 DRILL (.0635) | PCT NOZZLE PORT |  |
| | OR-00042A | 2 | O-RING, VITON, -016 | - | |
| | RM-815-01X | 1 | PATTERN CONTROL TIP 01X | - |  |
| GU-815-02 | GU-03033 | 1 | #65 DRILL (.0350) | PCT PURGE PORT |  |
| | GU-03035 | 1 | #54 DRILL (.055) | PCT PURGE PORT |  |
| | GU-03024 | 1 | #51 DRILL (.0676) | PCT NOZZLE PORT |  |
| | OR-00042A | 2 | O-RING, VITON, -016 | - | |
| | RM-815-02 | 1 | PATTERN CONTROL TIP 02 | - |  |

| PCT KITS (CONTINUED) | | | | | |
|-----------------------------|------------|---|-------------------------|-----------------|---|
| GU-815-02X | GU-03033 | 1 | #65 DRILL (.0350) | PCT PURGE PORT |  |
| | GU-03035 | 1 | #54 DRILL (.055) | PCT PURGE PORT |  |
| | 200480 | 1 | 2mm DRILL (.0787) | PCT NOZZLE PORT |  |
| | OR-00042A | 2 | O-RING, VITON, -016 | - | |
| | RM-815-02X | 1 | PATTERN CONTROL TIP 02X | - |  |
| GU-815-03 | GU-03033 | 1 | #65 DRILL (.0350) | PCT PURGE PORT |  |
| | GU-03035 | 1 | #54 DRILL (.055) | PCT PURGE PORT |  |
| | GU-03028 | 1 | #44 DRILL (.0860) | PCT NOZZLE PORT |  |
| | OR-00042A | 2 | O-RING, VITON, -016 | - | |
| | RM-815-03 | 1 | PATTERN CONTROL TIP 03 | - |  |
| GU-815-04 | GU-03033 | 1 | #65 DRILL (.0350) | PCT PURGE PORT |  |
| | GU-03035 | 1 | #54 DRILL (.055) | PCT PURGE PORT |  |
| | 200481 | 1 | 2.4mm DRILL (.0945) | PCT NOZZLE PORT |  |
| | OR-00042A | 2 | O-RING, VITON, -016 | - | |
| | RM-815-04 | 1 | PATTERN CONTROL TIP 04 | - |  |
| 200919 | GU-03033 | 1 | #65 DRILL (.0350) | PCT PURGE PORT |  |
| | GU-03035 | 1 | #54 DRILL (.055) | PCT PURGE PORT |  |
| | 201093 | 1 | 2.9mm DRILL (.114) | PCT NOZZLE PORT |  |
| | OR-00042A | 2 | O-RING, VITON, -016 | - | |
| | 200918 | 1 | PATTERN CONTROL TIP 05 | - |  |

| CHAMBER/PCT KITS | | | |
|-------------------------|--------------------|------------|-----------------------|
| KIT NUMBER | PART NUMBER | QTY | DESCRIPTION |
| KT-814-000 | GU-814-000 | 1 | CHAMBER 000 W/ DRILLS |
| | GU-815-000 | 1 | PCT 000 RND W/ DRILLS |
| | OR-00042A | 1 | O-RING, VITON, -016 |
| KT-814-00 | GU-814-00 | 1 | CHAMBER 00 W/ DRILLS |
| | GU-815-00 | 1 | PCT 00 RND W/ DRILLS |
| | OR-00042A | 1 | O-RING, VITON, -016 |
| KT-814-00X | GU-814-00X | 1 | CHAMBER 00X W/ DRILLS |
| | GU-815-00X | 1 | PCT 00X W/ DRILLS |
| | OR-00042A | 1 | O-RING, VITON, -016 |
| KT-814-01 | GU-814-01 | 1 | CHAMBER 01 W/ DRILLS |
| | GU-815-01 | 1 | PCT 01 RND W/ DRILLS |
| | OR-00042A | 1 | O-RING, VITON, -016 |
| KT-814-01X | GU-814-01X | 1 | CHAMBER 01X W/ DRILLS |
| | GU-815-01X | 1 | PCT 01X RND W/ DRILLS |
| | OR-00042A | 1 | O-RING, VITON, -016 |
| KT-814-02 | GU-814-02 | 1 | CHAMBER 02 W/ DRILLS |
| | GU-815-02 | 1 | PCT 02 RND W/ DRILLS |
| | OR-00042A | 1 | O-RING, VITON, -016 |
| KT-814-02X | GU-814-02X | 1 | CHAMBER 02X W/ DRILLS |
| | GU-815-02X | 1 | PCT 02X RND W/ DRILLS |
| | OR-00042A | 1 | O-RING, VITON, -016 |
| KT-814-03 | GU-814-03 | 1 | CHAMBER 03 W/ DRILLS |
| | GU-815-03 | 1 | PCT 03 RND W/ DRILLS |
| | OR-00042A | 1 | O-RING, VITON, -016 |
| KT-814-04 | GU-814-04 | 1 | CHAMBER 04 W/ DRILLS |
| | GU-815-04 | 1 | PCT 04 RND W/ DRILLS |
| | OR-00042A | 1 | O-RING, VITON, -016 |
| 201119 | 200920 | 1 | CHAMBER 05 W/ DRILLS |
| | 200918 | 1 | PCT 05 RND W/ DRILLS |
| | OR-00042A | 1 | O-RING, VITON, -016 |

| SOFT CHAMBER KITS | | |
|--------------------------|------------|--------------------|
| PART NUMBER | QTY | DESCRIPTION |
| GU-814-S00 | 1 | CHAMBER SOFT 00 |
| GU-814-S000 | 1 | CHAMBER SOFT 000 |
| GU-814-S0000 | 1 | CHAMBER SOFT 0000 |
| GU-814-S01 | 1 | CHAMBER SOFT 01 |
| GU-814-S02 | 1 | CHAMBER SOFT 02 |
| GU-814-S03 | 1 | CHAMBER SOFT 03 |
| GU-814-S04 | 1 | CHAMBER SOFT 04 |

***FOR USE WITH PLASTIC SIDE SEALS (202248)**
NOT COMPATIBLE WITH STANDARD SIDE SEALS

| DIAMOND PLATED CHAMBER/PCT KITS | | | |
|--|------------------------|------------|-----------------------|
| KIT NUMBER | PART NUMBER | QTY | DESCRIPTION |
| KT-814-DP-000 | GU-814- DP -000 | 1 | CHAMBER 000 W/ DRILLS |
| | GU-815-000 | 1 | PCT 000 RND W/ DRILLS |
| | OR-00042A | 1 | O-RING, VITON, -016 |
| KT-814-DP-00 | GU-814- DP -00 | 1 | CHAMBER 00 W/ DRILLS |
| | GU-815-00 | 1 | PCT 00 RND W/ DRILLS |
| | OR-00042A | 1 | O-RING, VITON, -016 |
| KT-814-DP-00X | GU-814- DP -00X | 1 | CHAMBER 00X W/ DRILLS |
| | GU-815-00X | 1 | PCT 00X W/ DRILLS |
| | OR-00042A | 1 | O-RING, VITON, -016 |
| KT-814-DP-01 | GU-814- DP -01 | 1 | CHAMBER 01 W/ DRILLS |
| | GU-815-01 | 1 | PCT 01 RND W/ DRILLS |
| | OR-00042A | 1 | O-RING, VITON, -016 |
| KT-814-DP-01X | GU-814- DP -01X | 1 | CHAMBER 01X W/ DRILLS |
| | GU-815-01X | 1 | PCT 01X RND W/ DRILLS |
| | OR-00042A | 1 | O-RING, VITON, -016 |
| KT-814-DP-02 | GU-814- DP -02 | 1 | CHAMBER 02 W/ DRILLS |
| | GU-815-02 | 1 | PCT 02 RND W/ DRILLS |
| | OR-00042A | 1 | O-RING, VITON, -016 |
| KT-814-DP-02X | GU-814- DP -02X | 1 | CHAMBER 02X W/ DRILLS |
| | GU-815-02X | 1 | PCT 02X RND W/ DRILLS |
| | OR-00042A | 1 | O-RING, VITON, -016 |
| KT-814-DP-03 | GU-814- DP -03 | 1 | CHAMBER 03 W/ DRILLS |
| | GU-815-03 | 1 | PCT 03 RND W/ DRILLS |
| | OR-00042A | 1 | O-RING, VITON, -016 |
| KT-814-DP-04 | GU-814- DP -04 | 1 | CHAMBER 04 W/ DRILLS |
| | GU-815-04 | 1 | PCT 04 RND W/ DRILLS |
| | OR-00042A | 1 | O-RING, VITON, -016 |
| KT-814-DP-05 | 200920 | 1 | CHAMBER 05 W/ DRILLS |
| | 200918 | 1 | PCT 05 RND W/ DRILLS |
| | OR-00042A | 1 | O-RING, VITON, -016 |

| AP-2/AP-3 SPARE PARTS KITS DESC | | |
|--|-----------------------------------|-----------------------|
| PART NUMBER | DESCRIPTION | REFERENCE PAGE |
| 200445 | AP-2/AP-3-000 SPARE PARTS KIT | 28 |
| 200446 | AP-2/AP-3-00 SPARE PARTS KIT | 28 |
| 200447 | AP-2/AP-3-00X SPARE PARTS KIT | 28 |
| 200448 | AP-2/AP-3-01 SPARE PARTS KIT | 28 |
| 200449 | AP-2/AP-3-01X SPARE PARTS KIT | 28 |
| 200450 | AP-2/AP-3-02 SPARE PARTS KIT | 28 |
| 200451 | AP-2/AP-3-02X SPARE PARTS KIT | 28 |
| 200452 | AP-2/AP-3-03 SPARE PARTS KIT | 28 |
| 200453 | AP-2/AP-3-04 SPARE PARTS KIT | 28 |
| 201173 | AP-2/AP-3-05 SPARE PARTS KIT | 28 |
| 202536 | AP-2/AP-3-000 SPARE PARTS KIT, DP | 29 |
| 202537 | AP-2/AP-3-00 SPARE PARTS KIT, DP | 29 |
| 202538 | AP-2/AP-3-00X SPARE PARTS KIT, DP | 29 |
| 202539 | AP-2/AP-3-01 SPARE PARTS KIT, DP | 29 |
| 202540 | AP-2/AP-3-01X SPARE PARTS KIT, DP | 29 |
| 202541 | AP-2/AP-3-02 SPARE PARTS KIT, DP | 29 |
| 202542 | AP-2/AP-3-02X SPARE PARTS KIT, DP | 29 |
| 202543 | AP-2/AP-3-03 SPARE PARTS KIT, DP | 29 |
| 202544 | AP-2/AP-3-04 SPARE PARTS KIT, DP | 29 |
| 202545 | AP-2/AP-3-05 SPARE PARTS KIT, DP | 29 |

FOR ALL DIAMOND PLATED KITS (202536-202545)

❖ **KT-814-SIZE IS REPLACED WITH KT-814-DP-SIZE**

❖ **202247 IS REPLACED WITH 202454**

AP-2/AP-3 SPARE PARTS KITS

| KIT PART NUMBER | | 200445 | 200446 | 200447 | 200448 | 200449 | 200450 | 200451 | 200452 | 200453 | 201173 |
|-----------------|---------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| PART NUMBER | DESCRIPTION | 000 | 00 | 00X | 01 | 01X | 02 | 02X | 03 | 04 | 05 |
| 200459 | O-RING, VITON, -018 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 200592 | 000 PKG DRILL BITS | 1 | - | - | - | - | - | - | - | - | - |
| 200593 | 00 PKG DRILL BITS | - | 1 | - | - | - | - | - | - | - | - |
| 200598 | 00X PKG DRILL BITS | - | - | 1 | - | - | - | - | - | - | - |
| KT-830 | 01 PKG DRILL BITS | - | - | - | 1 | - | - | - | - | - | - |
| 200596 | 01X PKG DRILL BITS | - | - | - | - | 1 | - | - | - | - | - |
| KT-829 | 02 PKG DRILL BITS | - | - | - | - | - | 1 | - | - | - | - |
| 200597 | 02X PKG DRILL BITS | - | - | - | - | - | - | 1 | - | - | - |
| 200594 | 03 PKG DRILL BITS | - | - | - | - | - | - | - | 1 | - | - |
| 200595 | 04 PKG DRILL BITS | - | - | - | - | - | - | - | - | 1 | - |
| 201174 | 05 PKG DRILL BITS | - | - | - | - | - | - | - | - | - | 1 |
| 202247 | SIDE SEAL, .125 STEEL | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| GP-00101 | PIN VICE | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| GP-LUBEGREASE | GREASE; TUBE | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| GU-020 | MANUAL VALVE ASSY. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| GU-04007 | SCREEN SCREW SEAL | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| GU-818-80 | FILTER SCREEN; 80 MESH | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| KT-020 | MANUAL VALVE SOFTWARE KIT | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| KT-814-SIZE | CHAMBER/PCT ROUND SIZE W/DRILLS | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | - |
| 201119 | CHAMBER/PCT ROUND 05 W/DRILLS | - | - | - | - | - | - | - | - | - | 1 |
| KT-850 | CHECK VALVE KIT | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| OR-00026A | O-RING, VITON, -129 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| OR-00042A | O-RING, VITON, -016 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| OR-00043B | O-RING, AFLAS, -010 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| OR-800 | #013 BACK UP RING | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| OR-801A | O-RING, AFLAS, -013 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| OR-804 | O-RING, BUNA, 2MMX4MM | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| OR-805 | O-RING, VITON, -108 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| SP-04005 | SPRING; SIDE SEAL | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |

AP-2/AP-3 SPARE PARTS KITS (DIAMOND PLATED)

| KIT PART NUMBER | | 202536 | 202537 | 202538 | 202539 | 202540 | 202541 | 202542 | 202543 | 202544 | 202545 |
|-----------------|-------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| PART NUMBER | DESCRIPTION | 000 | 00 | 00X | 01 | 01X | 02 | 02X | 03 | 04 | 05 |
| 200459 | O-RING, VITON, -018 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 200592 | 000 PKG DRILL BITS | 1 | - | - | - | - | - | - | - | - | - |
| 200593 | 00 PKG DRILL BITS | - | 1 | - | - | - | - | - | - | - | - |
| 200598 | 00X PKG DRILL BITS | - | - | 1 | - | - | - | - | - | - | - |
| KT-830 | 01 PKG DRILL BITS | - | - | - | 1 | - | - | - | - | - | - |
| 200596 | 01X PKG DRILL BITS | - | - | - | - | 1 | - | - | - | - | - |
| KT-829 | 02 PKG DRILL BITS | - | - | - | - | - | 1 | - | - | - | - |
| 200597 | 02X PKG DRILL BITS | - | - | - | - | - | - | 1 | - | - | - |
| 200594 | 03 PKG DRILL BITS | - | - | - | - | - | - | - | 1 | - | - |
| 200595 | 04 PKG DRILL BITS | - | - | - | - | - | - | - | - | 1 | - |
| 201174 | 05 PKG DRILL BITS | - | - | - | - | - | - | - | - | - | 1 |
| 202454 | SIDE SEAL, .125 RESIN | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| GP-00101 | PIN VICE | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| GP-LUBEGREASE | GREASE; TUBE | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| GU-020 | MANUAL VALVE ASSY. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| GU-04007 | SCREEN SCREW SEAL | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| GU-818-80 | FILTER SCREEN; 80 MESH | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| KT-020 | MANUAL VALVE SOFTWARE KIT | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| KT-814-DP-SIZE | CHAMBER/PCT ROUND SIZE W/DRILLS, DP | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| KT-850 | CHECK VALVE KIT | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| OR-00026A | O-RING, VITON, -129 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| OR-00042A | O-RING, VITON, -016 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| OR-00043B | O-RING, AFLAS, -010 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| OR-800 | #013 BACK UP RING | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| OR-801A | O-RING, AFLAS, -013 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| OR-804 | O-RING, BUNA, 2MMX4MM | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| OR-805 | O-RING, VITON, -108 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| SP-04005 | SPRING; SIDE SEAL | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |

| AP-2/AP-3 PACKAGE DRILL BITS | | | | | | | | | | | |
|-------------------------------------|-----------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| KIT PART NUMBER | | 200592 | 200593 | 200598 | KT-830 | 200596 | KT-829 | 200597 | 200594 | 200595 | 201174 |
| PART NUMBER | DESCRIPTION | 000 | 00 | 00X | 01 | 01X | 02 | 02X | 03 | 04 | 05 |
| 200476 | DRILL 0.94mm (.0370") | 2 | - | - | - | - | - | - | - | - | - |
| 200477 | DRILL 1.25mm (.0492") | - | 2 | - | - | - | - | - | - | - | - |
| 200478 | DRILL 1.35mm (.0531") | - | - | 2 | - | - | - | - | - | - | - |
| 200480 | DRILL 2.00mm (.0787") | - | - | - | - | - | - | 2 | - | - | - |
| 200481 | DRILL 2.40mm (.0945") | - | - | - | - | - | - | - | - | 2 | - |
| 201093 | DRILL 2.90mm (.1142") | - | - | - | - | - | - | - | - | - | 1 |
| 201120 | DRILL 2.87mm (.1130") | - | - | - | - | - | - | - | - | - | 1 |
| GU-03021 | DRILL 1.04mm (.0410") | - | - | - | 1 | - | - | - | - | - | - |
| GU-03023 | DRILL 1.18mm (.0465") | - | - | - | - | - | 1 | - | - | - | - |
| GU-03024 | DRILL 1.70mm (.0670") | - | - | - | - | - | 1 | - | - | - | - |
| GU-03027 | DRILL 0.74mm (.0292") | - | 1 | - | - | - | - | - | - | - | - |
| GU-03028 | DRILL 2.18mm (.0860") | - | - | - | - | - | - | - | 1 | - | 1 |
| GU-03031 | DRILL 0.71mm (.0280") | 1 | - | - | - | - | - | - | - | - | - |
| GU-03032 | DRILL 0.99mm (.0390") | - | - | 1 | - | - | - | - | - | - | - |
| GU-03033 | DRILL 0.89mm (.0350") | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| GU-03035 | DRILL 1.40mm (.0550") | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 |
| GU-03050 | DRILL 1.32mm (.0520") | - | - | - | - | - | - | 1 | - | - | - |
| GU-03052 | DRILL 1.09mm (.0430") | - | - | - | - | 1 | - | - | - | - | - |
| GU-03053 | DRILL 1.61mm (.0635") | - | - | - | - | 1 | - | - | - | - | - |
| GU-03054 | DRILL 1.78mm (.0700") | - | - | - | - | - | - | - | - | 1 | - |

| PMC RECOMMENDED O-RING GREASE | | |
|--------------------------------------|------------|-----------------------------------|
| PART NUMBER | QTY | DESCRIPTION |
| GP-LUBEGREASE | 1 | LUBRIPLATE GREASE |
| TL-04003 | 1 | GREASE TUBE FOR USE W/ GREASE GUN |

MISCELLANEOUS PARTS/KITS

| SIDE SEAL KIT, RESIN (202546) | | |
|--|------------|-------------------------|
| PART NUMBER | QTY | DESCRIPTION |
| 202454 | 2 | SIDE SEAL, .125, RESIN |
| OR-00043B | 2 | O-RING, AFLAS 80D, -010 |

| SCREEN SIZES | | |
|---------------------|------------|--|
| PART NUMBER | QTY | DESCRIPTION |
| GU-818-40 | 1 | FILTER SCREEN, 40 MESH |
| GU-818-60 | 1 | FILTER SCREEN, 60 MESH |
| GU-818-80 | 1 | FILTER SCREEN, 80 MESH (STANDARD) |
| KT-818-40 | 1 | FILTER SCREEN, 40 MESH (PKG 10) |
| KT-818-60 | 1 | FILTER SCREEN, 60 MESH (PKG 10) |
| KT-818-80 | 1 | FILTER SCREEN, 80 MESH (PKG 10) |

| A & R SCREEN SCREW ASSEMBLY KITS | | | |
|---|--------------------|------------|---------------------|
| KIT NUMBER | PART NUMBER | QTY | DESCRIPTION |
| KT-819-A | GU-04007 | 1 | SCREEN SCREW SEAL |
| | GU-819-A | 1 | A SCREEN SCREW |
| | OR-800 | 1 | #013 BACK UP RING |
| | OR-801A | 1 | O-RING, AFLAS, -013 |
| KT-819-R | GU-04007 | 1 | SCREEN SCREW SEAL |
| | GU-819-R | 1 | R SCREEN SCREW |
| | OR-800 | 1 | #013 BACK UP RING |
| | OR-801A | 1 | O-RING, AFLAS, -013 |

AP-3 O-RING KIT (201118)

| PART NUMBER | QTY | DESCRIPTION |
|-------------|-----|-------------------------|
| 200459 | 1 | O-RING, VITON, -018 |
| OR-00026A | 2 | O-RING, VITON, -129 |
| OR-00042A | 1 | O-RING, VITON, -016 |
| OR-00043B | 4 | O-RING, AFLAS, -010 |
| OR-800 | 2 | #013 BACK UP RING |
| OR-801A | 2 | O-RING, AFLAS, -013 |
| OR-804 | 3 | O-RING, BUNA, 2mm X 4mm |

AIR CYLINDER REBUILD KIT (202244)

| PART NUMBER | QTY | DESCRIPTION |
|-------------|-----|-------------------------|
| 200459 | 1 | O-RING, VITON, -018 |
| 201562 | 1 | AP-3 BUSHING |
| GU-829 | 1 | A/P CHECK VALVE |
| OR-00026A | 2 | O-RING, VITON, -129 |
| OR-00042A | 1 | O-RING, VITON, -016 |
| OR-00043B | 2 | O-RING, AFLAS, -010 |
| OR-804 | 3 | O-RING, BUNA, 2mm X 4mm |

1/4" UNHEATED STAINLESS STEEL HOSE ASSEMBLY

| PART NUMBER | DESCRIPTION |
|-------------|----------------------------|
| MA-41 | HOSE PACKAGE KIT, UNHEATED |
| MA-41A | REPLACEMENT HOSE, "A" SIDE |
| MA-41R | REPLACEMENT HOSE, "R" SIDE |

| RECOMMENDED SPARE PARTS | | | |
|--------------------------------|------------|----------------------------------|-------------|
| PART NUMBER | QTY | DESCRIPTION | PAGE |
| 201118 | 1 | AP-3 O-RING KIT | 32 |
| 202244 | 1 | AIR CYLINDER REBUILD KIT | 32 |
| 202546 | 1 | SIDE SEAL KIT, RESIN | 31 |
| GU-020 | 1 | MANUAL VALVE ASSEMBLY | 37 |
| GU-04007 | 2 | SCREEN SCREW SEAL | 40 |
| GU-818-40 | 4 | FILTER SCREEN 40 MESH | 31 |
| GU-818-60 | 4 | FILTER SCREEN 60 MESH | 31 |
| GU-818-80 | 4 | FILTER SCREEN 80 MESH (STANDARD) | 31 |
| KT-850 | 2 | CHECK VALVE ASSEMBLY | 38 |
| OR-00042A | 2 | O-RING, VITON, -016 | 32 |
| OR-00043B | 8 | O-RING, AFLAS, -010 | 32 |
| OR-800 | 8 | #013 BACK UP RING | 32 |
| OR-801A | 8 | O-RING, AFLAS, -013 | 32 |
| SP-04005 | 2 | SPRING; SIDE SEAL | 40 |
| TL-04003 | 1 | GREASE TUBE | 42 |

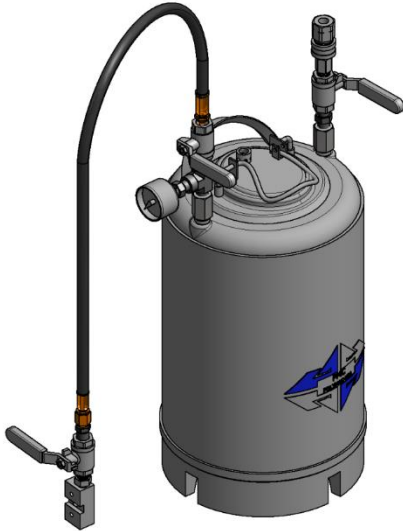
| OPTIONAL PARTS | | |
|-----------------------|------------|--------------------------------|
| PART NUMBER | QTY | DESCRIPTION |
| GU-815-50-509 | 1 | BLASTER TIP .059 |
| GU-815-50 | 1 | BLASTER TIP 3.5 |
| GU-815-51 | 1 | POUR TIP |
| GU-815-53 | 1 | POUR NOZZLE |
| GU-815-52 | 1 | PCT FLAT TIP RETAINER ASSEMBLY |
| * GU-815-52-1 | 1 | PCT FLAT TIP BODY |
| * GU-815-52-2 | 1 | PCT FLAT TIP GASKET |
| * GU-815-52-3 | 1 | PCT FLAT TIP RETAINER |
| * OR-00042A | 1 | O-RING, VITON, -016 |
| 202247 | 1 | SIDE SEAL, .125, STEEL |
| 202248 | 1 | SIDE SEAL, .125, DELRIN |
| 202454 | 1 | SIDE SEAL, .125, RESIN |

***DENOTES PARTS IN THE GU-815-52**

NOTE: SPRAY TIP NOT INCLUDED WITH PART NUMBER GU-815-52

FLUSH TANKS

Optional 2.5 Gallon Flush Tank (200426, 200427) and 1QT Mini Flush Tank (200216, 200217) shown.



2.5 Gallon Flush Tank

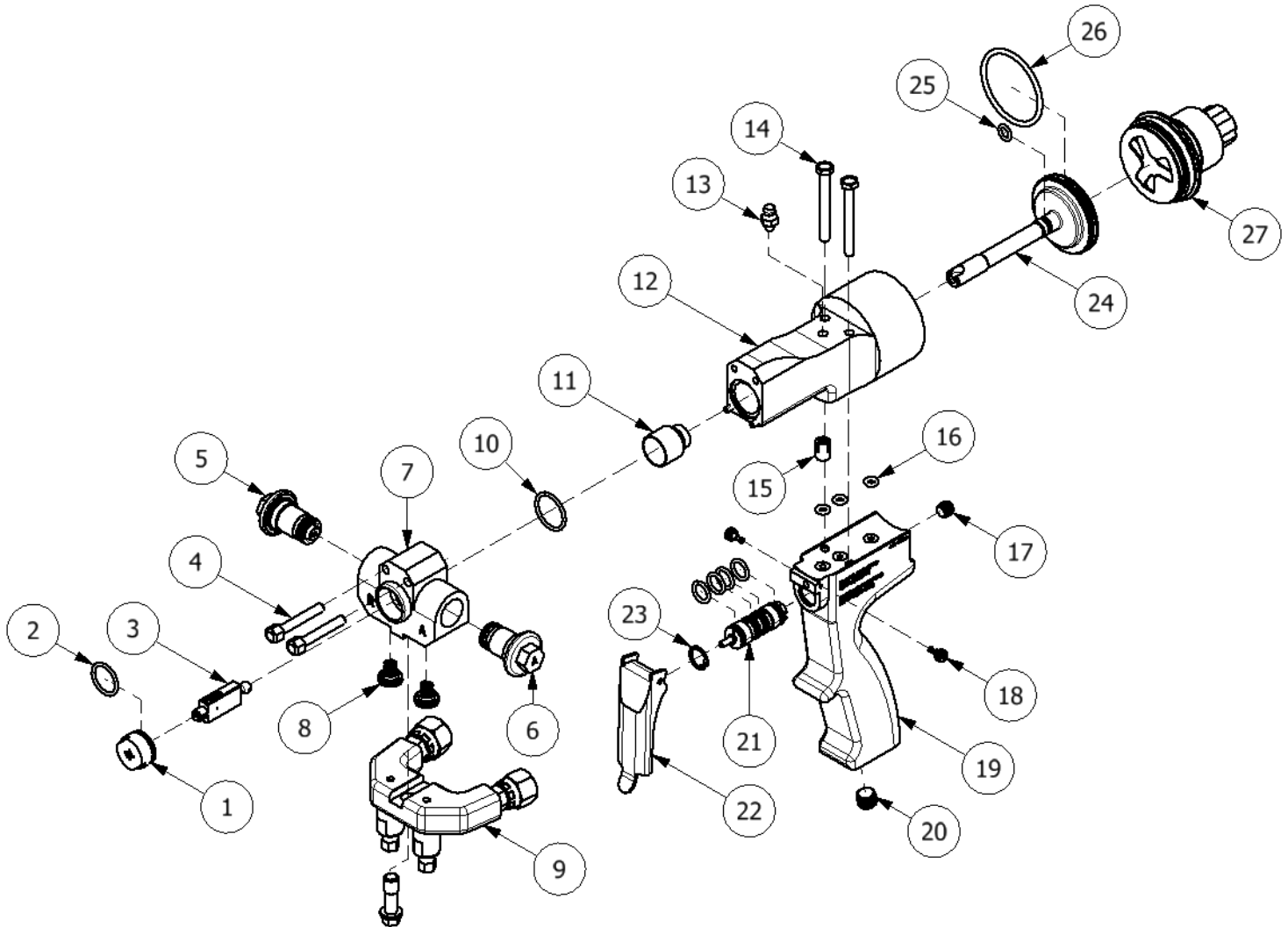


1 QT Mini Flush Tank

| FLUSH TANKS | |
|---|---|
| 2.5 Gallon Flush Tank | 1 QT Mini Flush Tank |
| 200426 – Solvent Flush Kit, 2.5 Gal, AP | 200216 – Solvent Flush Kit, Quart, AP |
| 200427 – Solvent Flush Kit, 2.5 Gal, F-AP | 200217 – Solvent Flush Kit, Quart, F-AP |

PARTS IDENTIFICATION

FINAL GUN ASSEMBLY

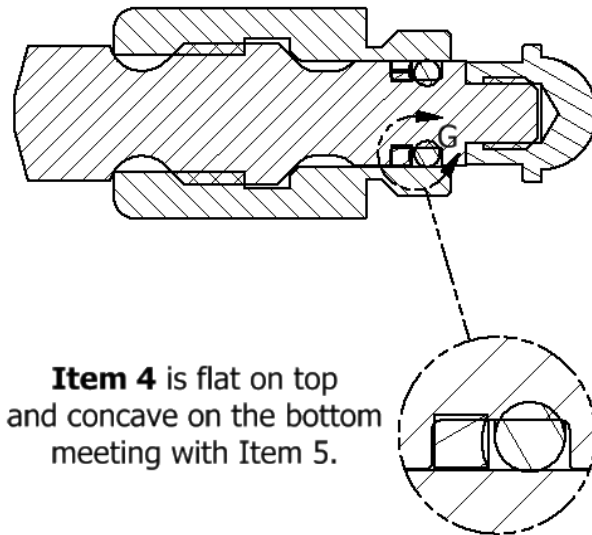
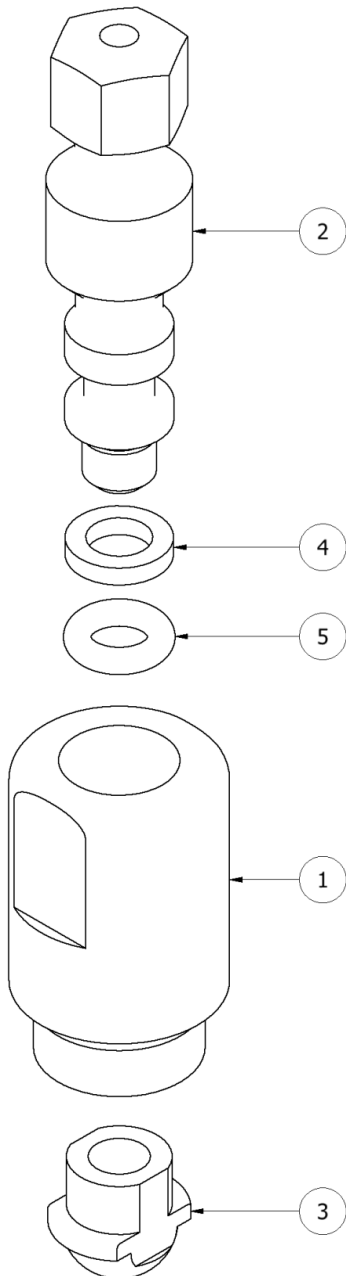


NOTE: WHEN ASSEMBLING BE SURE TO APPLY GREASE TO **ALL** O-RINGS. THIS ENSURES GOOD PERFORMANCE AND REDUCES RISK OF GUN MALFUNCTION.

| GUN ASSEMBLY | | | |
|---------------------|------------|--------------------|-------------------------------|
| ITEM | QTY | PART NUMBER | DESCRIPTION |
| 1 | 1 | RM-815-SIZE | PCT |
| 2 | 1 | OR-00042A | O-RING, VITON, -016 |
| 3 | 1 | RM-814-DP-SIZE | MIXING CHAMBER |
| 4 | 2 | 201108 | SCREW, HEX CAP, 10-32 CUSTOM |
| 5 | 1 | 202410 | SCREEN SCREW ASSEMBLY, R-SIDE |
| 6 | 1 | 202409 | SCREEN SCREW ASSEMBLY, A-SIDE |
| 7 | 1 | 200635 | ALUMINIUM GUN BLOCK, AP-3 |
| | | 200636 | STEEL GUN BLOCK, AP-3 |
| 8 | 1 | KT-850 | CHECK VALVE ASSEMBLY |
| 9 | 1 | GU-04001 | GUN BLOCK ASSEMBLY |
| 10 | 1 | 200459 | O-RING, VITON, -018 |
| 11 | 1 | 201562 | AIR CYLINDER BUSHING |
| 12 | 1 | 201092 | CYLINDER, PINNED, AP-3 |
| 13 | 1 | TN-04186 | GREASE FITTING, 1/4-28 |
| 14 | 2 | 201109 | HHCS, 10-24 X 1.750, ZP |
| 15 | 1 | GU-829 | A/P CHECK VALVE |
| 16 | 3 | OR-804 | O-RING, BUNA, 2mmX4mm |
| 17 | 1 | 200507 | PIPE PLUG, 1/16 NPT, STEEL |
| 18 | 2 | 201110 | SHOULDER BOLT, 1/8D, 1/8L, SS |
| 19 | 1 | 200637 | HANDLE, AP-3 |
| 20 | 1 | TN-04192 | 1/8 NPT PIPE PLUG |
| 21 | 1 | 200634 | VALVE, CARTIDGE, 4-WAY |
| 22 | 1 | 201139 | TRIGGER, AP-3 |
| 23 | 1 | 201111 | RETAINING RING, INT, 1/2 ID |
| 24 | 1 | 200638 | PISTON, AP-3 |
| 25 | 1 | OR-00043B | O-RING, AFLAS, -010 |
| 26 | 1 | OR-00026A | O-RING, VITON, -129 |
| 27 | 1 | GU-844 | END CAP ASSEMBLY, AP-2/3 |

MANUAL VALVE ASSEMBLY

(GU-020)



Item 4 is flat on top and concave on the bottom meeting with Item 5.

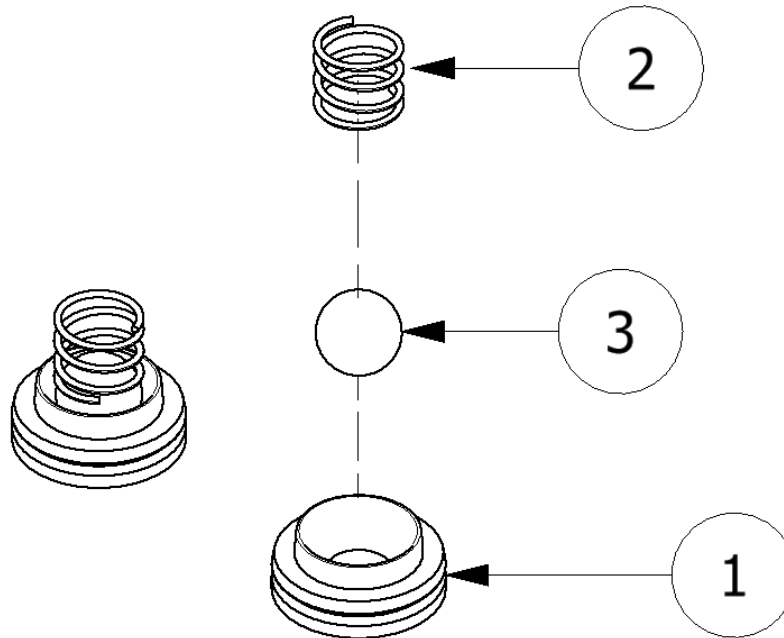
NOTE: The orientation of the back-up ring is important. The concave face must point towards the O-Ring.

| MANUAL VALVE ASSEMBLY | | | |
|-----------------------|-----|-------------|------------------------------|
| ITEM | QTY | PART NUMBER | DESCRIPTION |
| 1 | 1 | GU-022 | MANUAL VALVE HOUSING |
| 2 | 1 | GU-021 | MANUAL VALVE STEM |
| 3 | 1 | GU-023 | MANUAL VALVE SEAT |
| 4 | 1 | OR-016 | 007 VITON CURVED BACKUP RING |
| 5 | 1 | OR-015 | #007 AFLAS O-RING |

| MANUAL VALVE SOFTWARE KIT (KT-020) | | |
|---------------------------------------|-----|-------------------------------|
| PART NUMBER | QTY | DESCRIPTION |
| GU-LOCTITE | 1 | LOCTITE #242 |
| OR-015 | 4 | O-RING, AFLAS, -007 |
| OR-016 | 4 | #007 VITON CURVED BACKUP RING |

CHECK VALVE ASSEMBLY

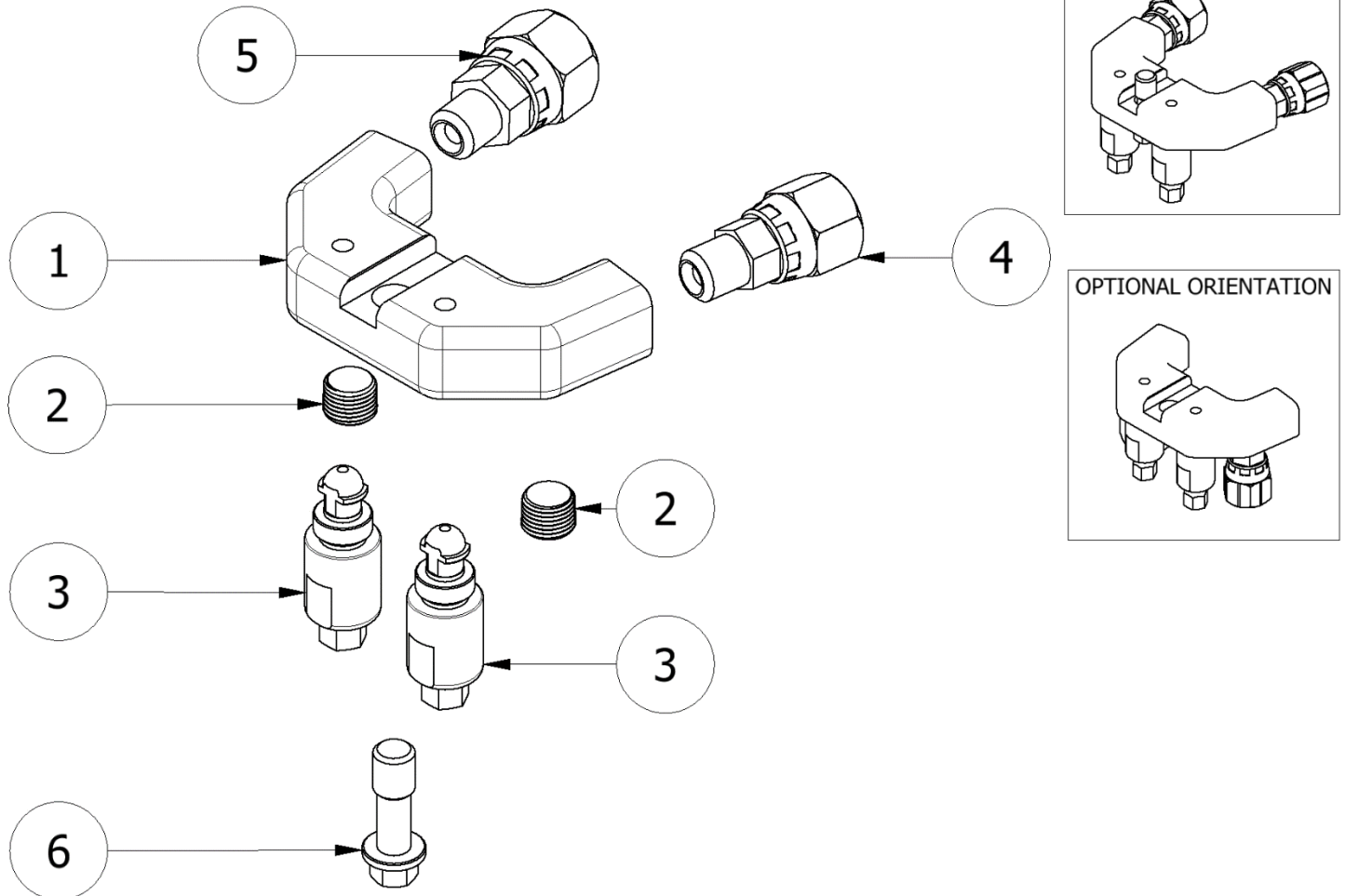
(KT-850)



| CHECK VALVE ASSEMBLY | | | |
|-----------------------------|-----|-------------|-----------------------|
| ITEM | QTY | PART NUMBER | DESCRIPTION |
| 1 | 2 | GU-851 | CHECK VALVE SEAT |
| 2 | 2 | GU-852 | CHECK VALVE SPRING |
| 3 | 2 | GU-853 | 1/4" CHECK VALVE BALL |

COUPLING BLOCK ASSEMBLY

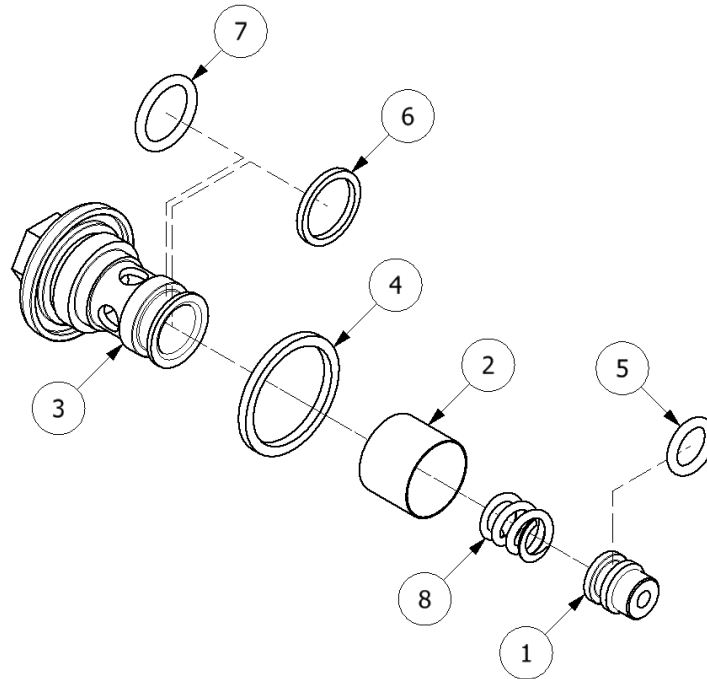
(GU-04001)



| COUPLING BLOCK ASSEMBLY | | | |
|--------------------------------|-----|-------------|-------------------------------|
| ITEM | QTY | PART NUMBER | DESCRIPTION |
| 1 | 1 | GU-04001-01 | COUPLING BLOCK BODY |
| 2 | 2 | TN-04192 | 1/8 NPT PIPE PLUG |
| 3 | 2 | GU-020 | MANUAL VALVE ASSY |
| 4 | 1 | RA-00005A | 1/8 NPT X #5 JIC SWIVEL |
| 5 | 1 | RA-00006A | 1/8 NPT X #6 JIC SWIVEL |
| 6 | 1 | TN-04193 | COUPLING BLOCK MOUNTING SCREW |

SCREEN SCREW ASSEMBLY

(A-SIDE: 202409 / R-SIDE: 202410)



NOTE: WHEN ASSEMBLING BE SURE TO APPLY GREASE TO **ALL** O-RINGS. THIS ENSURES GOOD PERFORMANCE AND REDUCES RISK OF GUN MALFUNCTION.

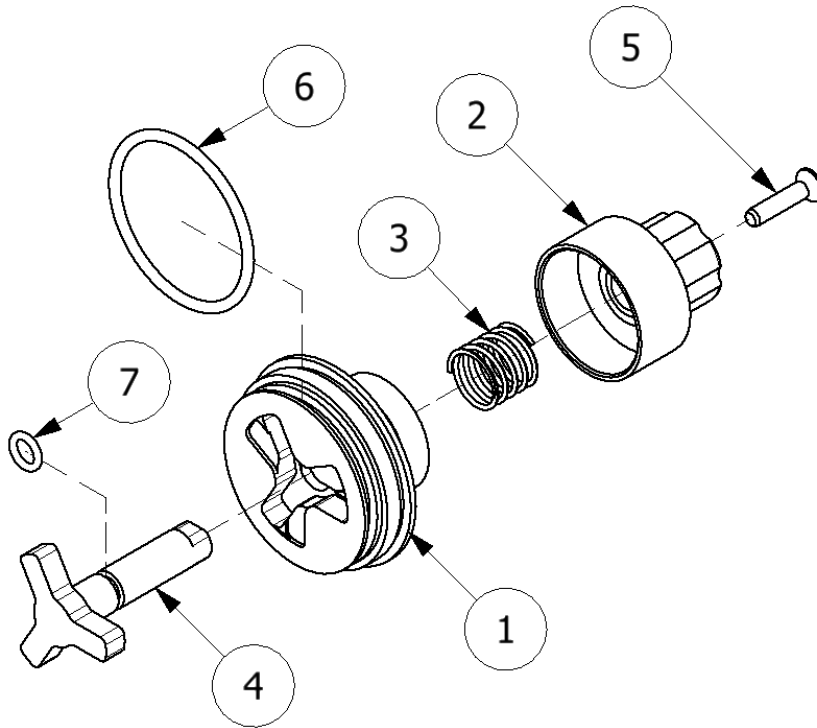
| SCREEN SCREW ASSEMBLY | | | |
|------------------------------|-----|-------------|---|
| ITEM | QTY | PART NUMBER | DESCRIPTION |
| 1** | 1 | 202454 | SIDE SEAL, .125, RESIN |
| 2 | 1 | GU-818-40 | FILTER SCREEN; 40 MESH |
| | 1 | GU-818-60 | FILTER SCREEN; 60 MESH |
| | 1 | GU-818-80 | FILTER SCREEN 80 MESH (STANDARD) |
| 3* | 1 | GU-819-R | "R" SCREEN SCREW |
| | 1 | GU-819-A | "A" SCREEN SCREW |
| 4* | 1 | GU-04007 | SCREEN SCREW SEAL |
| 5 | 1 | OR-00043B | O-RING, AFLAS, -010 |
| 6* | 1 | OR-800 | #013 BACK UP RING |
| 7* | 1 | OR-801A | O-RING, AFLAS, -013 |
| 8 | 1 | SP-04005 | SPRING; SIDE SEAL |

*Included in KT-819-R and KT-819-A (Pg. 31)

**Available in plastic (202248) for soft chambers

END CAP ASSEMBLY

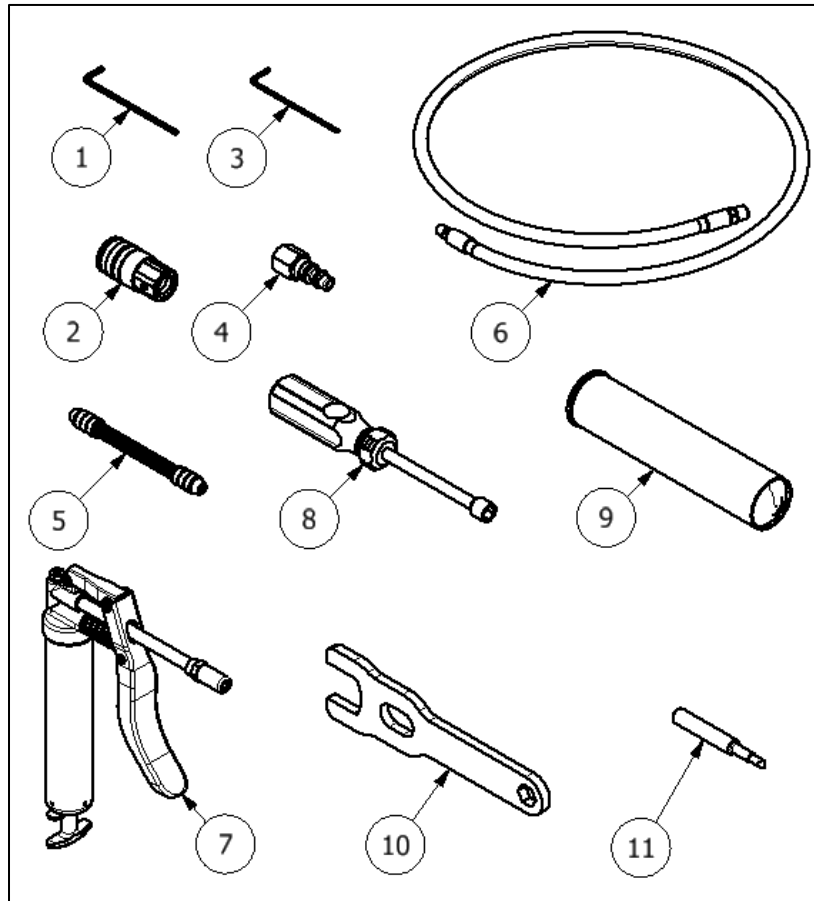
(GU-844)



NOTE: WHEN ASSEMBLING BE SURE TO APPLY GREASE TO ALL O-RINGS. THIS ENSURES GOOD PERFORMANCE AND REDUCES RISK OF GUN MALFUNCTION.

| SCREEN SCREW COMPONENTS | | | |
|--------------------------------|-----|-------------|---------------------|
| ITEM | QTY | PART NUMBER | DESCRIPTION |
| 1 | 1 | GU-803 | CYLINDER END CAP |
| 2 | 1 | GU-804 | LOCK KNOB |
| 3 | 1 | GU-806 | SPRING |
| 4 | 1 | GU-807 | TWO POSITION STOP |
| 5 | 1 | GU-831 | RETAINING SCREW |
| 6 | 1 | OR-00026A | O-RING, VITON, -129 |
| 7 | 1 | OR-00043B | O-RING, AFLAS, -010 |

LIST OF TOOLS

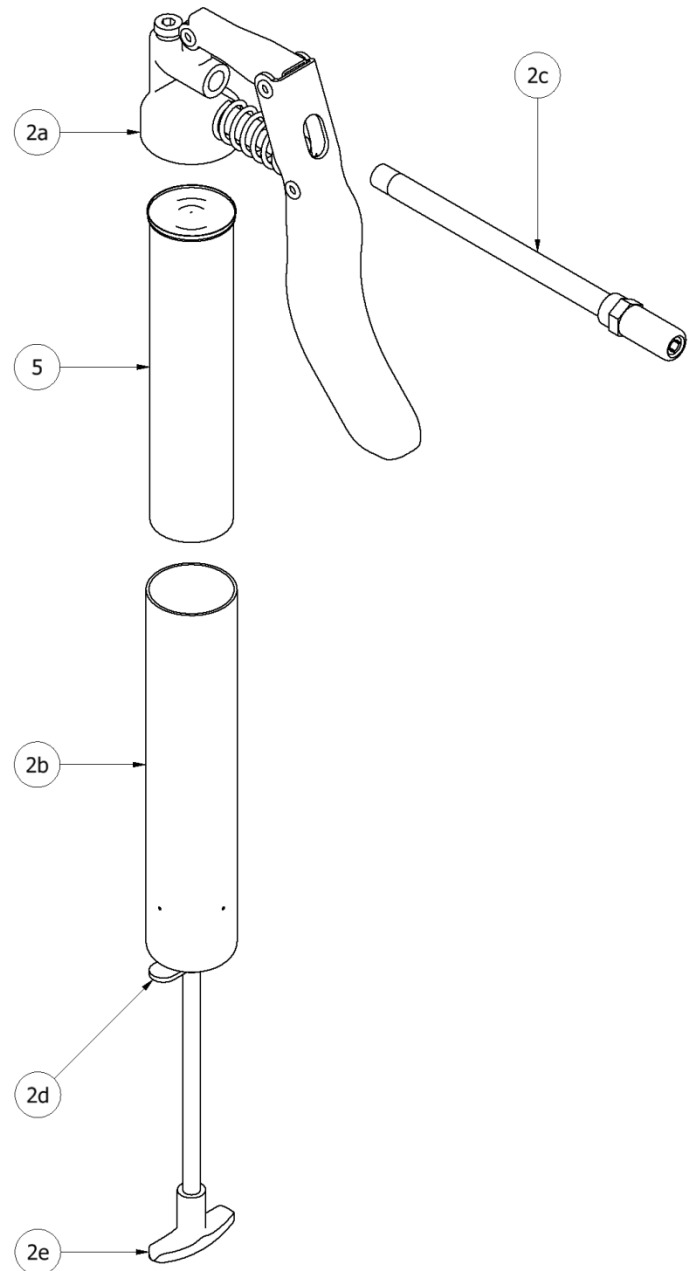


| LIST OF TOOLS | | | |
|----------------------|-----|-------------|--------------------------------|
| ITEM | QTY | PART NUMBER | DESCRIPTION |
| 1 | 1 | 200581 | 3/32" ALLEN WRENCH |
| 2 | 1 | 200585 | QUICK CONNECT, FEMALE |
| 3 | 1 | 200609 | 5/64" ALLEN WRENCH |
| 4 | 1 | 202340 | QD,PLUG,1/4 IND X 1/4 FNPT,STL |
| 5 | 1 | GP-00101 | DOUBLE ENDED PIN VISE |
| 6 | 1 | GU-04019 | AIR HOSE |
| 7 | 1 | TL-00002 | GREASE GUN |
| 8 | 1 | TL-04001 | 5/16 SPINTITE, NUT DRIVER |
| 9 | 1 | TL-04003 | GREASE TUBE |
| 10 | | TL-09 | OPEN END WRENCH |
| 11 | | TL-10 | CHECK VALVE REMOVAL TOOL |

APPENDIX

GREASE GUN ASSEMBLY

1. Screw the rod (2c) into the top of the grease gun (2a) so that the final assembly represents the assembled grease gun (page 8).
2. Unscrew the top of the grease gun (2a) from the bottom of the grease gun (2b).
3. Pull the handle (2e) on the bottom of the grease gun (2b) so that it resembles the picture.
4. Remove the tape and cap from the grease tube (5) and insert the uncapped end of the grease tube (5) into the bottom of the grease gun (2b).
5. Remove the foil from the grease tube (5).
6. Screw the top of the grease gun (2a) back on to the bottom of the grease gun (2b).
7. Push down on the latch (2d) to release the plunger and push plunger completely back in.



| MIXING CHAMBER FLOW RATES | | | | |
|----------------------------------|-------------------------------|----------------------------|-------------------------------|-----------------------------|
| Chamber | lbs/min @ 1000 psi | kg/min @ 69 bar | lbs/min @ 2000 psi | kg/min @ 138 bar |
| GU-814-000 | 4 | 2 | 6 | 3 |
| GU-814-00 | 7 | 3 | 11 | 5 |
| GU-814-00X | 8 | 3.5 | 13.5 | 6 |
| GU-814-01 | 9 | 4 | 16 | 7 |
| GU-814-01X | 10.5 | 4.5 | 19 | 8.5 |
| GU-814-02 | 12 | 5 | 22 | 10 |
| GU-814-02X | 15 | 7.5 | 27 | 12 |
| GU-814-03 | 18 | 8 | 32 | 14 |
| GU-814-04 | 25 | 11 | 47 | 21 |
| 200920 | 28 | 20 | 50 | 23 |

*Flow rates will vary depending on viscosity, hose length and machine efficiency.

| CHAMBER/ORIFICE COMPARISON CHART | | | |
|---|---------------------|-----------------------|---------------------|
| Competitive Air Purge | | PMC Air Purge | |
| Chamber Number | Orifice Size | Chamber Number | Orifice Size |
| 000 (AR2020) | 0.0200 | 000 | 0.0280 |
| 00 (AR2929) | 0.0290 | 00 | 0.0350 |
| NOT AVAILABLE | | 00X | 0.0380 |
| 01 (AR4242) | 0.0420 | 01 | 0.0410 |
| NOT AVAILABLE | | 01X | 0.0440 |
| 02 (AR5252) | 0.0520 | 02 | 0.0520 |
| NOT AVAILABLE | | 02X | 0.0550 |
| 03 (AR6060) | 0.0600 | 03 | 0.0610 |
| 04 (AR7070) | 0.0700 | 04 | 0.0690 |
| 05 (AR8686) | 0.0860 | 05 | 0.0860 |