



Air Purge Spray & Pour Gun AP-2

PATENT PENDING

For use with non-flammable Foam and
Polyurea

For professional use only

Not for use in explosive atmospheres

Service Manual

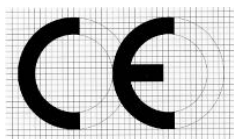
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Before installing the AP-2 Gun and start-up, carefully read all the technical and safety documentation included in this manual. Pay special attention to the information in order to know and understand the operation and the conditions of use of the AP-2 Gun. All of the information is aimed at improving user safety and avoiding possible breakdowns from the incorrect use of the AP-2 Gun.

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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-2 Gun.



Before installing the AP-2 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-2 Gun. All of the information is aimed at improving user safety and avoiding possible breakdowns from the incorrect use of the AP-2 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-EX 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-2 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.polymac-usa.com).

The AP-2 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-2 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-2 Gun. If in doubt, consult **PMC** Technical Service.

When working with the AP-2 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 Material Safety Data Sheet (MSDS) 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.



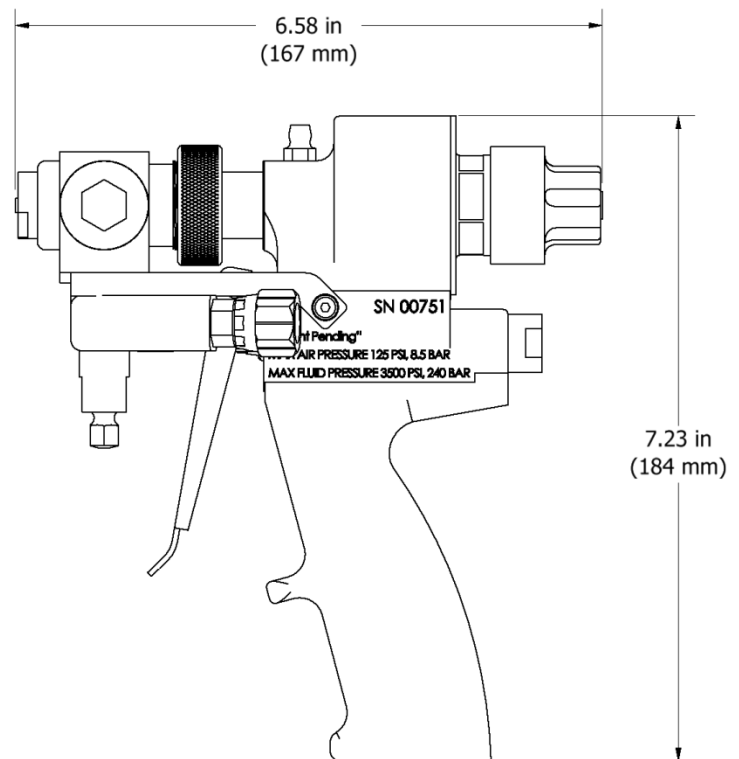
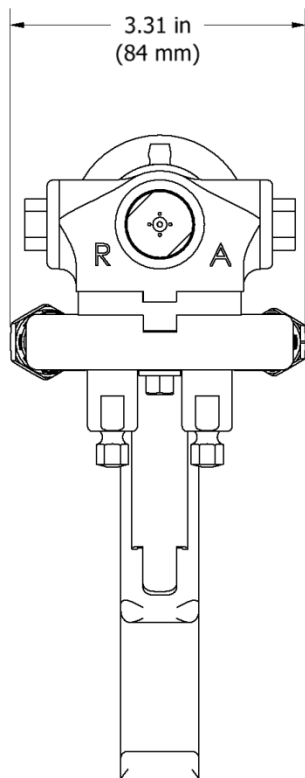
The equipment includes components that reach high temperatures and can cause burns. Hot parts of the equipment must not be handled or touched until they have cooled completely.



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

- Internal mixing from high pressure impingement
- Automatic cleaning with air pressure
- No solvents required
- Exterior lubrication of the Mix Chamber

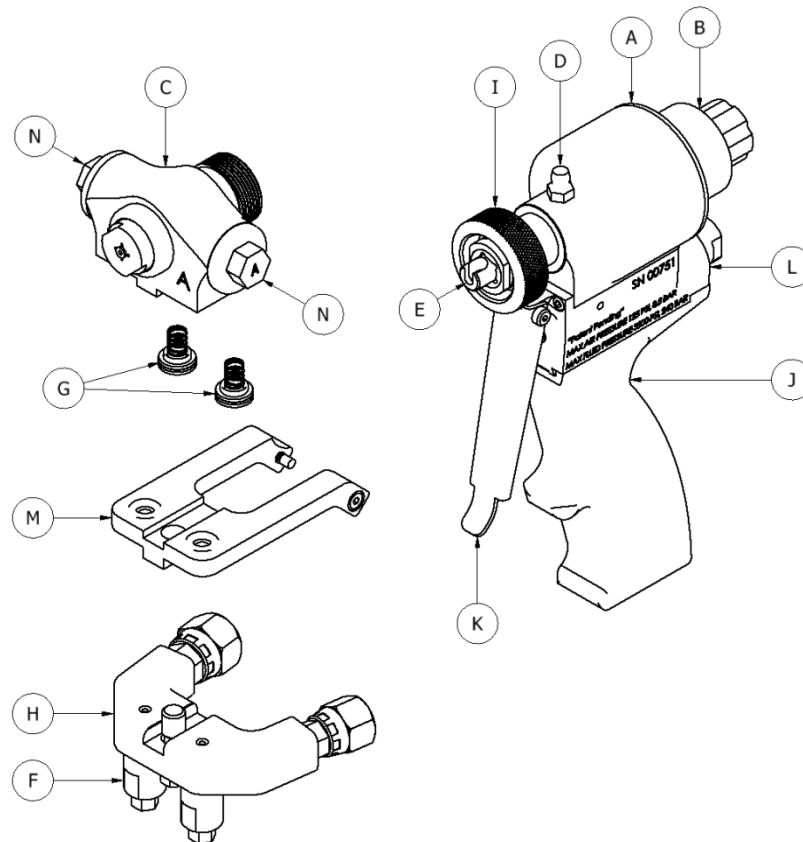


TECHNICAL SPECIFICATIONS

| | |
|--|--------------------------|
| Maximum Working Pressure: | 3,500 psi (245 Bar) |
| Air Pressure: | 90-125 psi (6.2-8.6 Bar) |
| Maximum Output (1:1 ratio): | 40 lb/min (20 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): | 2.235 lbs (1.014 kg) |
| Weight (Including Coupling Block): | 2.902 lbs (1.316 kg) |

GENERAL DESCRIPTION

For better knowledge of the **AP-2** Gun, the main components and their description are shown. For a more precise identification, see the Parts Identification section.



- | | |
|--------------------------------|-----------------------------------|
| A. Air Cylinder | H. Coupling Block Assembly |
| B. Gun Lock and End Cap | I. Lock Collar |
| C. Gun Block | J. Gun Handle |
| D. Grease Fitting | K. Trigger |
| E. Piston | L. Air Manifold Assembly |
| F. Manual Valves | M. Head Latch |
| G. Check Valves | N. Screen Screws |

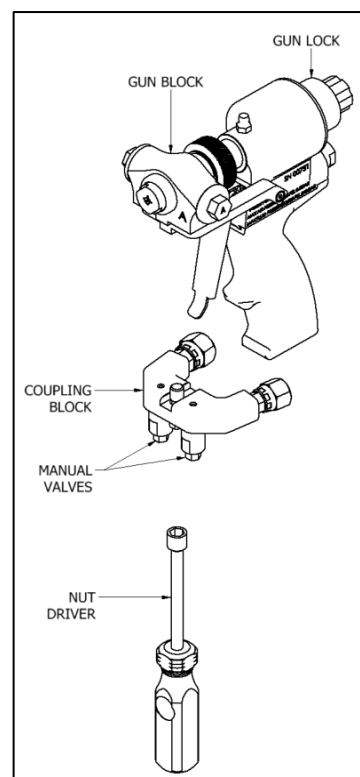
INSTALLATION AND START UP

CAUTION! When working with the AP-2 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.

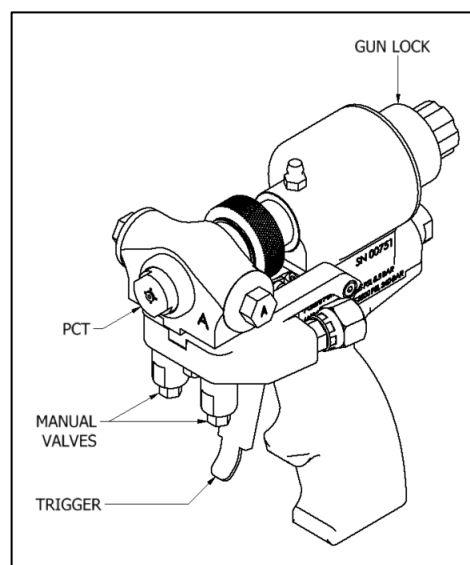
CAUTION! Excessive force closing or opening the **Manual Valves** may result in damage to the **Manual Valves** and/or **Coupling Block**.

3. Set the **Gun Lock** to the **LOCKED** position.
4. Ensure **Check Valve** Assemblies (G, Pg. 6) are in place.
5. Connect the **Coupling Block** to the **Gun Block** using the **Nut Driver** provided (Pg. 40). 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 (B) hoses have connections with different sizes to avoid incorrect connections.

7. Set the **Gun Lock** to the **OPEN** position.
8. Pull the **Trigger** several times to check for correct movement of the **Mixing Chamber** and **PCT**.
9. 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).
10. **OPEN** each **Manual Valve** by turning three (3) full turns counter clockwise.
11. Perform a test spray.



SHUTDOWN PROCEDURES

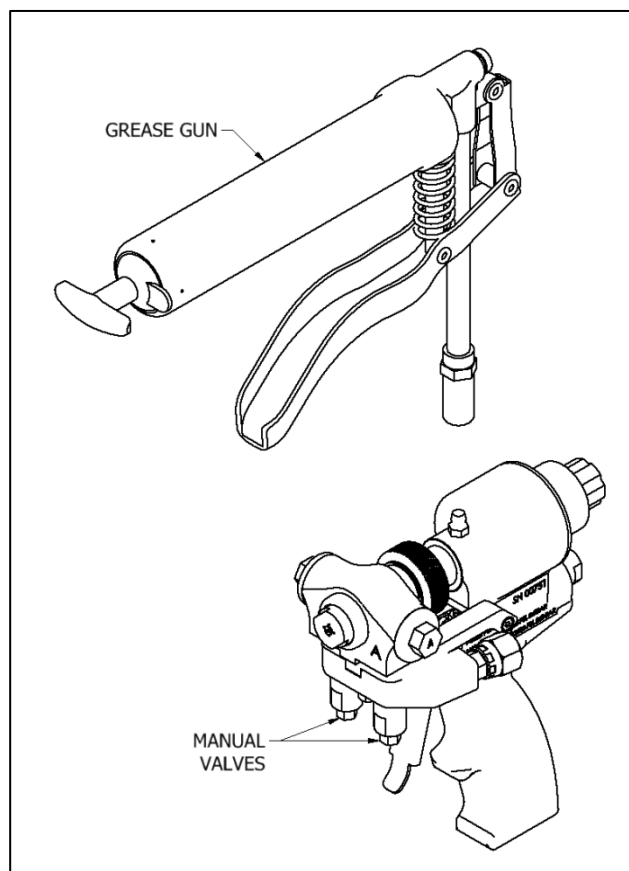
1. CLOSE the **Manual Valves** by turning them to the full clockwise position.

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. 40), lubricate the **Mixing Chamber** through the **Grease Fitting** until a fine mist of grease is sprayed from the gun (Pg. 41 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.*

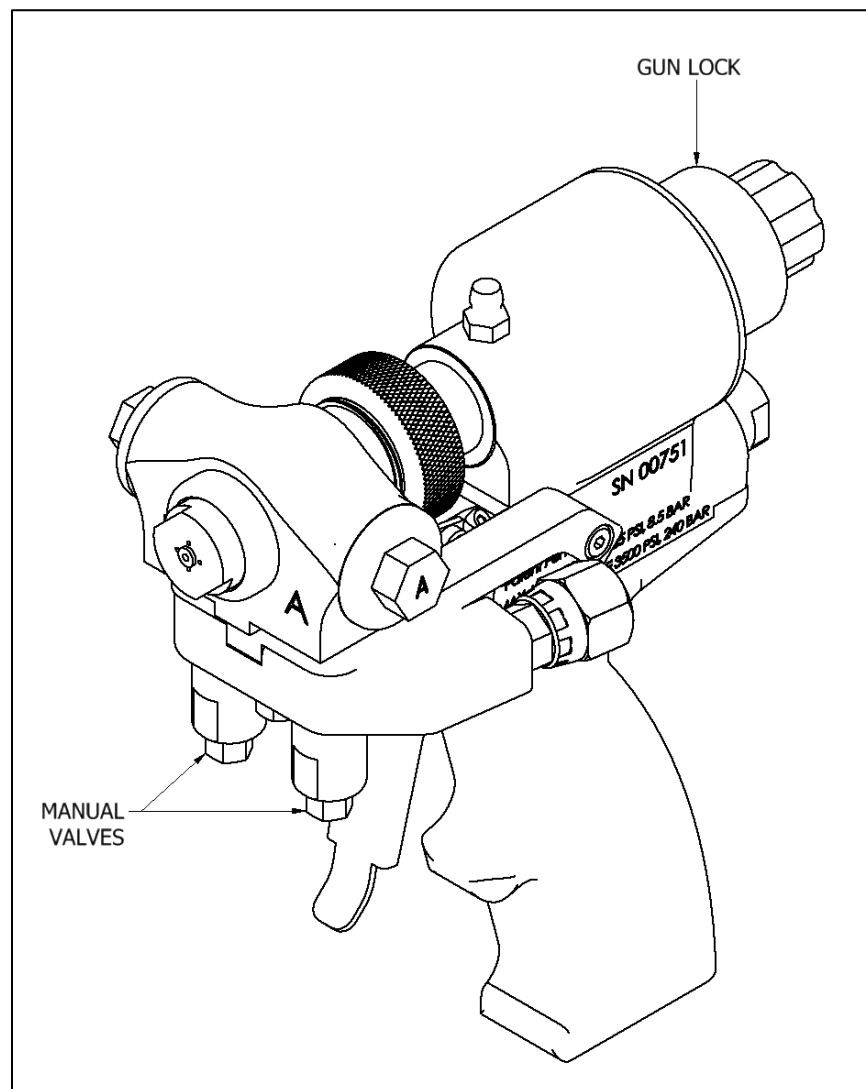
3. Disconnect the air supply.



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. In the locked position the **Gun Lock** will restrict the movement of the air piston (center line) from moving to the rear to an open position, thus rendering the gun inoperable.
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. Emergency shut off if trigger sticks – disconnect air line.



MAINTENANCE

To obtain maximum performance from your **AP-2 Gun**, it is necessary to periodically perform certain maintenance operations

WARNING! Before proceeding with any maintenance work on the AP-2 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 Material Safety Data Sheet (MSDS) 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.

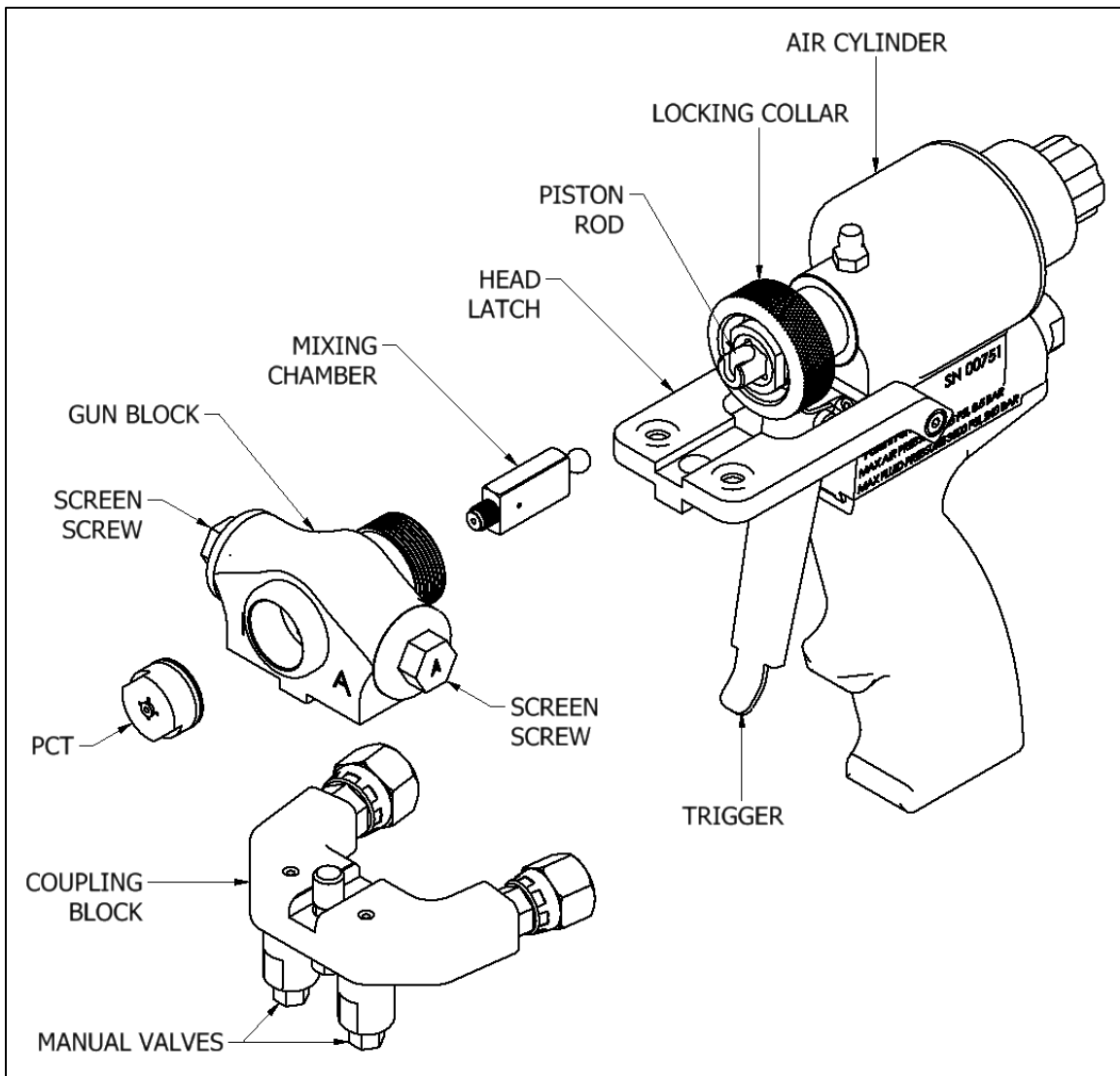


The equipment includes components that reach high temperatures and can cause burns. Hot parts of the equipment must not be handled or touched until they have cooled completely.



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.

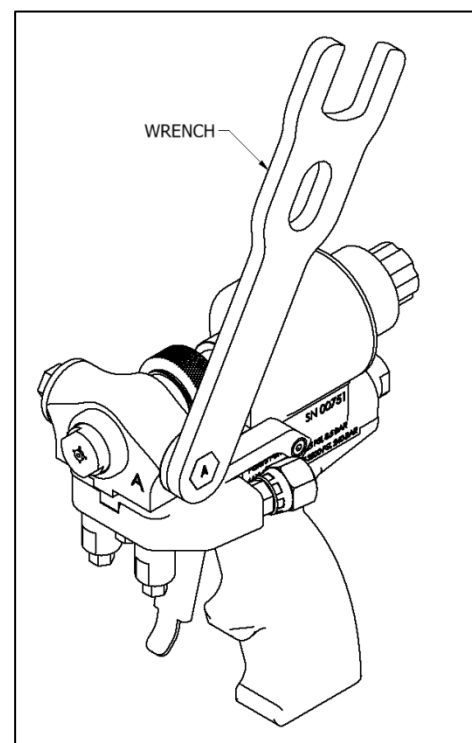
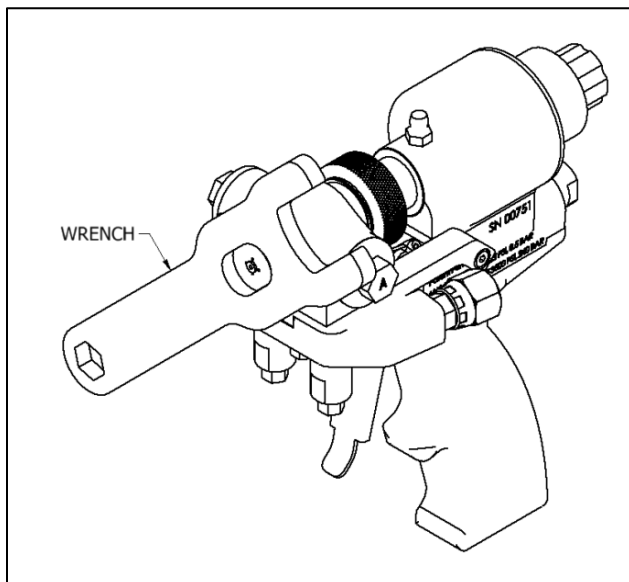
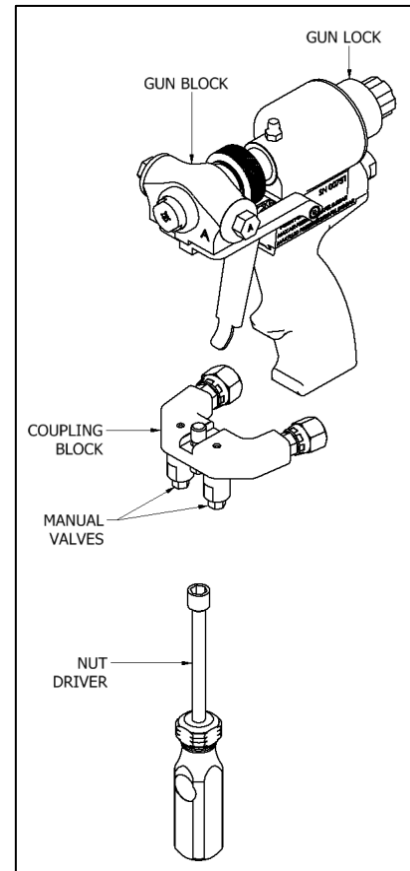
CAUTION! Excessive force opening or closing Manual Valves may result in damage to the Manual Valves and/or Coupling Block.

2. Point the gun over a waste container and pull the **Trigger** to relieve pressure.
3. Using the **Wrench** provided (Pg. 40), or a standard 5/8" wrench, remove the **PCT** from the mixing chamber, as shown below.
4. Using the **Wrench** provided (Pg. 40) or a 1/2" wrench, loosen or remove both **Screen Screws** to facilitate easy removal of the **Mixing Chamber**, as shown below.

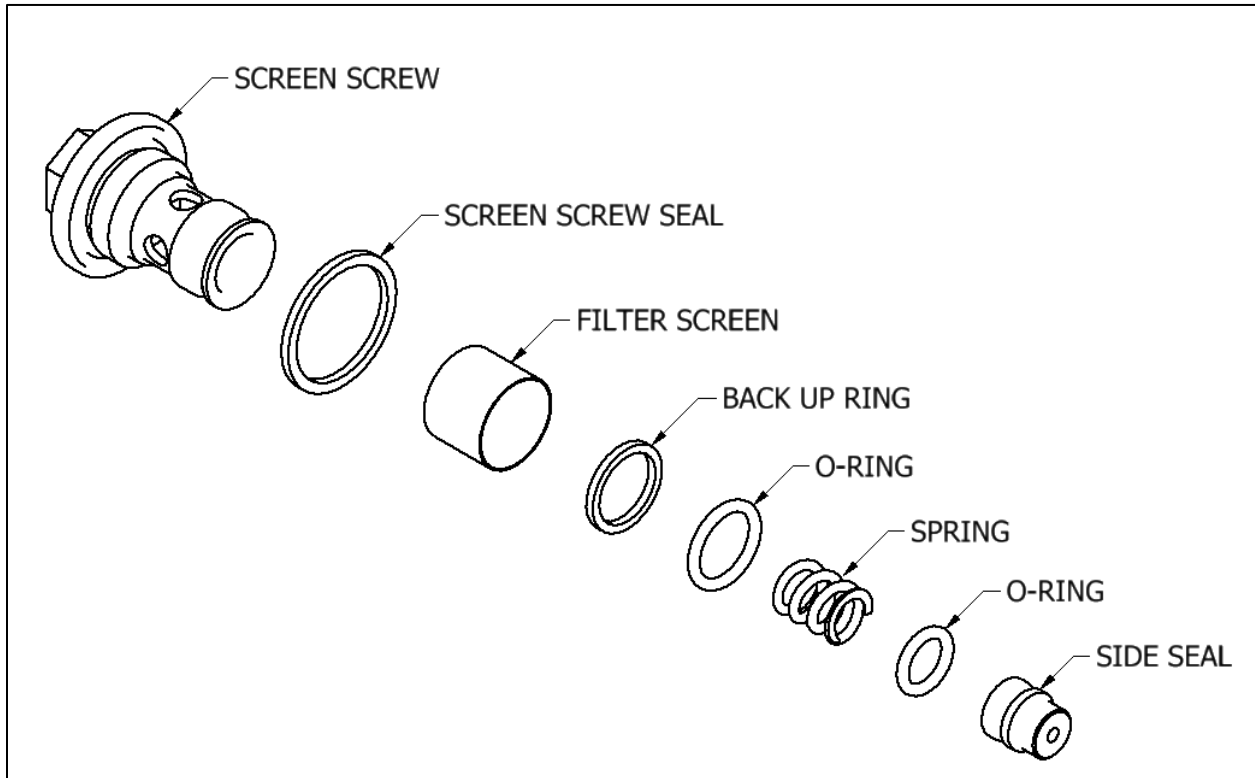
5. Using the **Nut Driver** provided (Pg. 40), remove the **Coupling Block** from the **Gun Block**.
6. Disengage the **Head Latch** from the **Gun Block**.
7. Loosen the **Locking Collar** from the **Gun Block** and remove the **Gun Block** from the **Air Cylinder**.
8. Remove the **Mixing Chamber** from the **Piston Rod**.
9. Flush the **Gun Block** to remove any residue. Use the recommended **Flush Tank** (Pg. 30).
10. Clean or replace the **Mixing Chamber** as required.
11. 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.

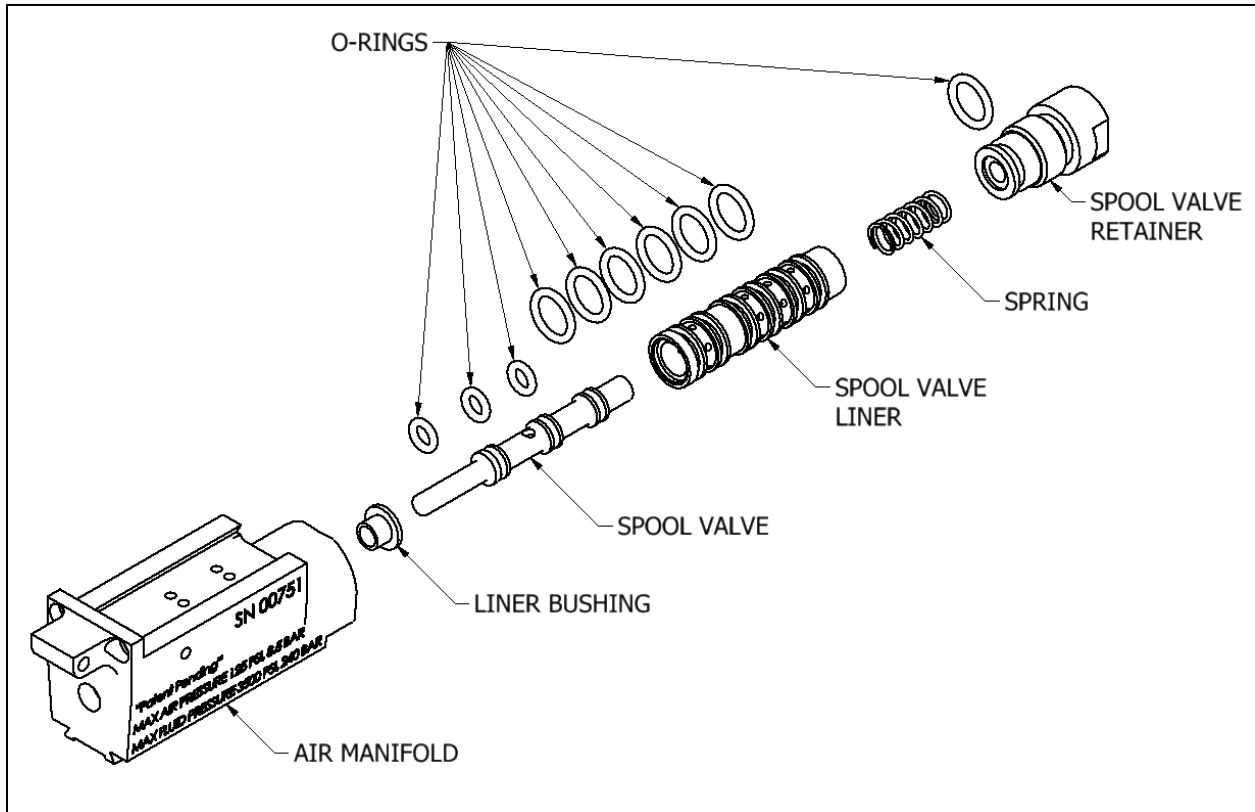
CAUTION! Excessive force opening or closing Manual Valves may result in damage to the Manual Valves and/or Coupling Block.

2. Point the gun over a waste container and pull the **Trigger** to relieve pressure.
3. **SHUT OFF** air supply to the gun.
4. Set the **Gun Lock** to the **LOCKED** position.
5. Use the **Wrench** provided (Pg. 40) or a ½" wrench to remove the **Screen Screw**.

6. To clean or replace the **Screens**, remove the larger **O-Ring** and **Back Up Ring**.
7. Remove the **Side Seal** and **Spring** from the **Screen Screw**. Inspect all components and O-rings. Clean or replace as required.
8. Inspect for damage and apply PMC lubrication to all O-rings and threads and reassemble in reverse order.
9. The gun is now ready for service.

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

Air Manifold 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.*

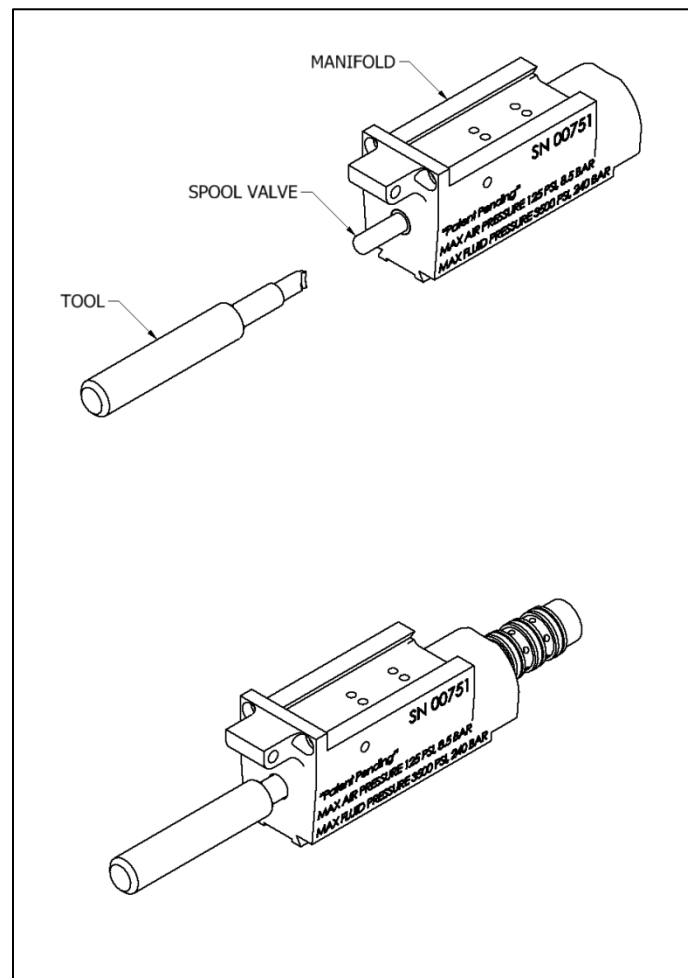
2. Set the **Gun Lock** to the **LOCKED** position.
3. **Disconnect** the air supply from the gun.
4. Use a suitable size wrench and remove the air fitting from the rear of the **Air Manifold**.
5. Remove the **Trigger** from the assembly to access the front of the **Air Manifold**.
6. Use the **Tool** provided (Pg. 40) and remove the **Spool Valve Retainer**.
7. Remove the **Spring**, **Spool Valve Liner**, **Spool Valve**, and **Liner Bushing** using the tool provided (Pg. 40), as shown below.
8. Remove and discard all **O-Rings**.

9. Replace the **O-rings** and **Spring** supplied in KT-826 (Pg. 26). Extra PMC grease will facilitate reassembly.

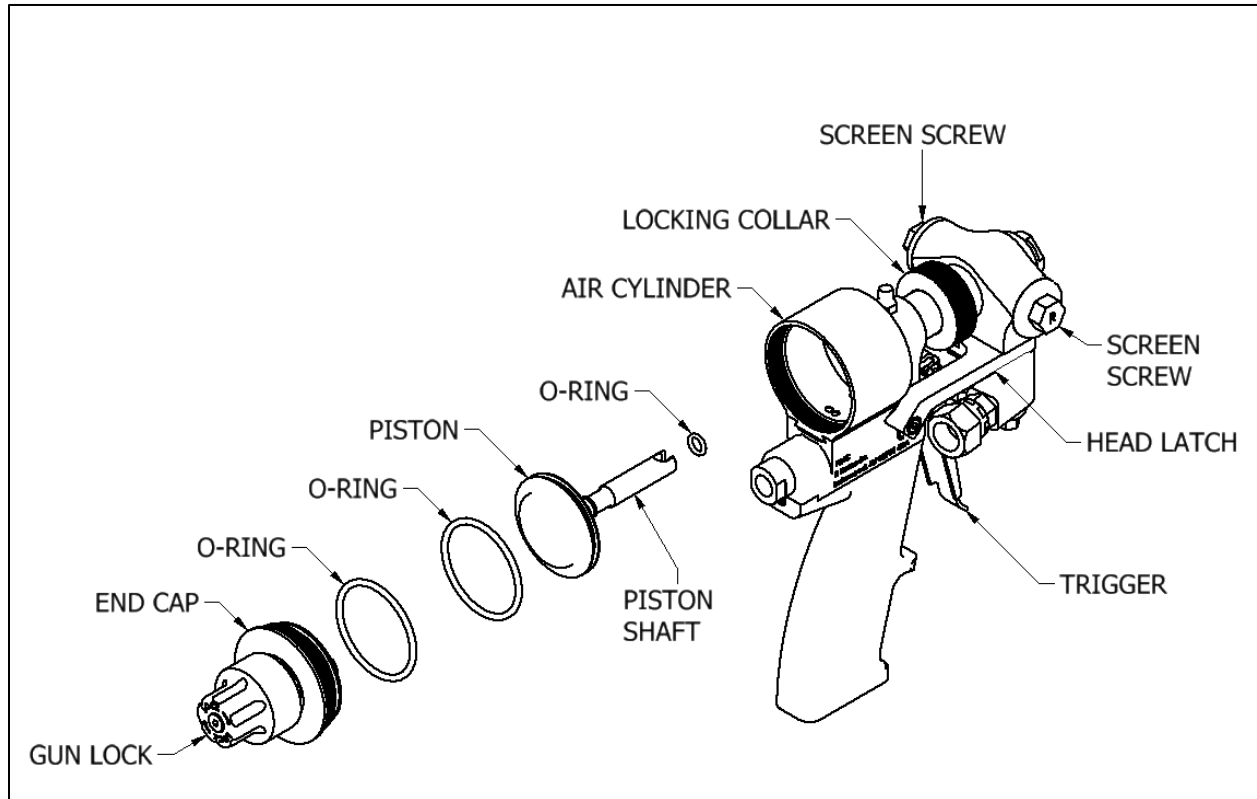
NOTE! *When replacing O-rings, replace ALL O-rings included in KT-826 Rebuild Kit.*

10. Inspect, clean and/or replace all remaining assembly components. Apply a small amount of PMC grease to the inside of the manifold cavity and to the **O-rings** on the **Spool Valve** to facilitate reassembly.

11. Reattach the **Trigger** and **Air Manifold** assembly in reverse order.



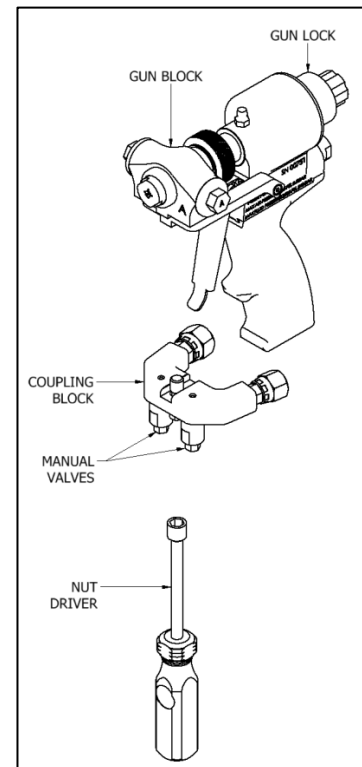
Air Cylinder Maintenance



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

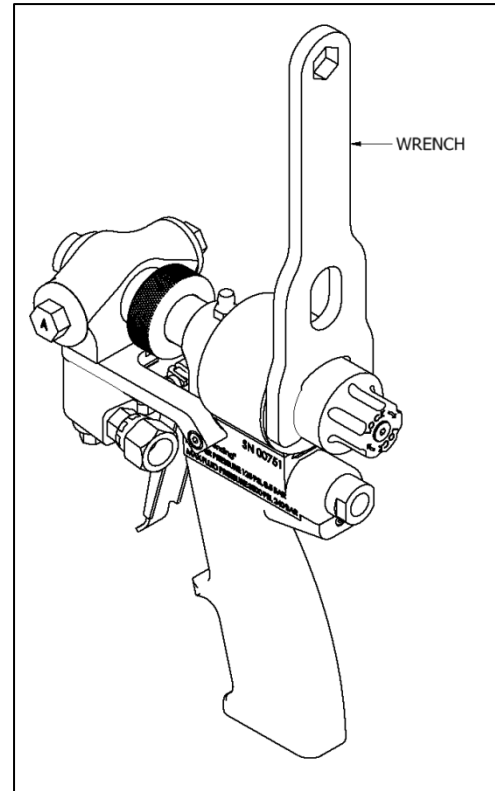
CAUTION! Excessive force opening or closing Manual Valves may result in damage to the Manual Valves and/or Coupling Block.

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. Loosen the **Screen Screws** using the **Wrench** provided (Pg. 40) a ½" wrench.
6. Disconnect **Coupling Block** from **Gun Block** using the **Nut Driver** provided (Pg. 40).



7. Disengage the **Head Latch** from the **Gun Block**.
8. Loosen the **Locking Collar** from the **Gun Block** and remove the complete **Gun Block** assembly from the **Air Cylinder**.
9. Using the **Wrench** provided (Pg. 39), remove the **End Cap**.
10. Push on the exposed **Piston** by the **Locking Collar** 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 KT-801 Rebuild Kit.*

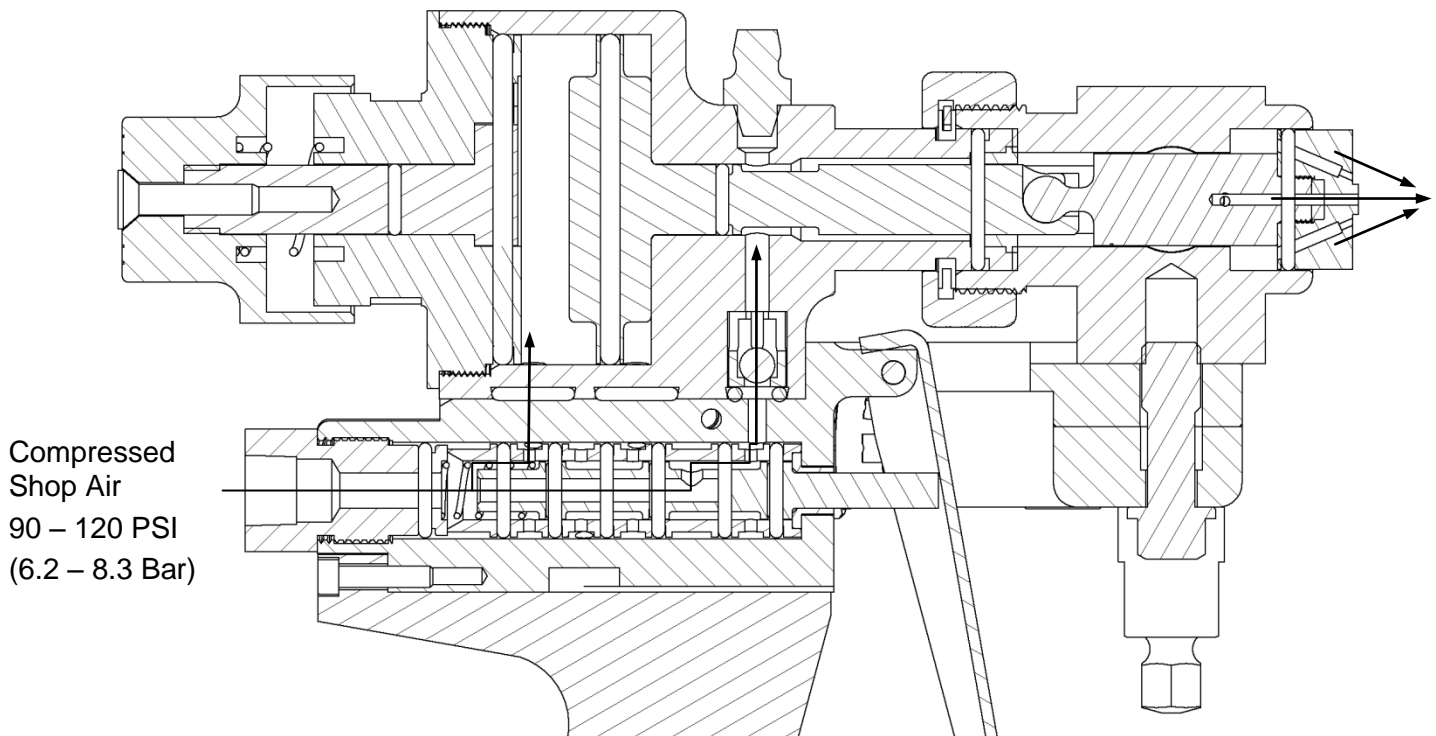


13. Coat the inside of the **Cylinder** and all **O-rings** with PMC grease to facilitate reassembly.
14. Reassemble the **Air Cylinder** in reverse order.

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.*

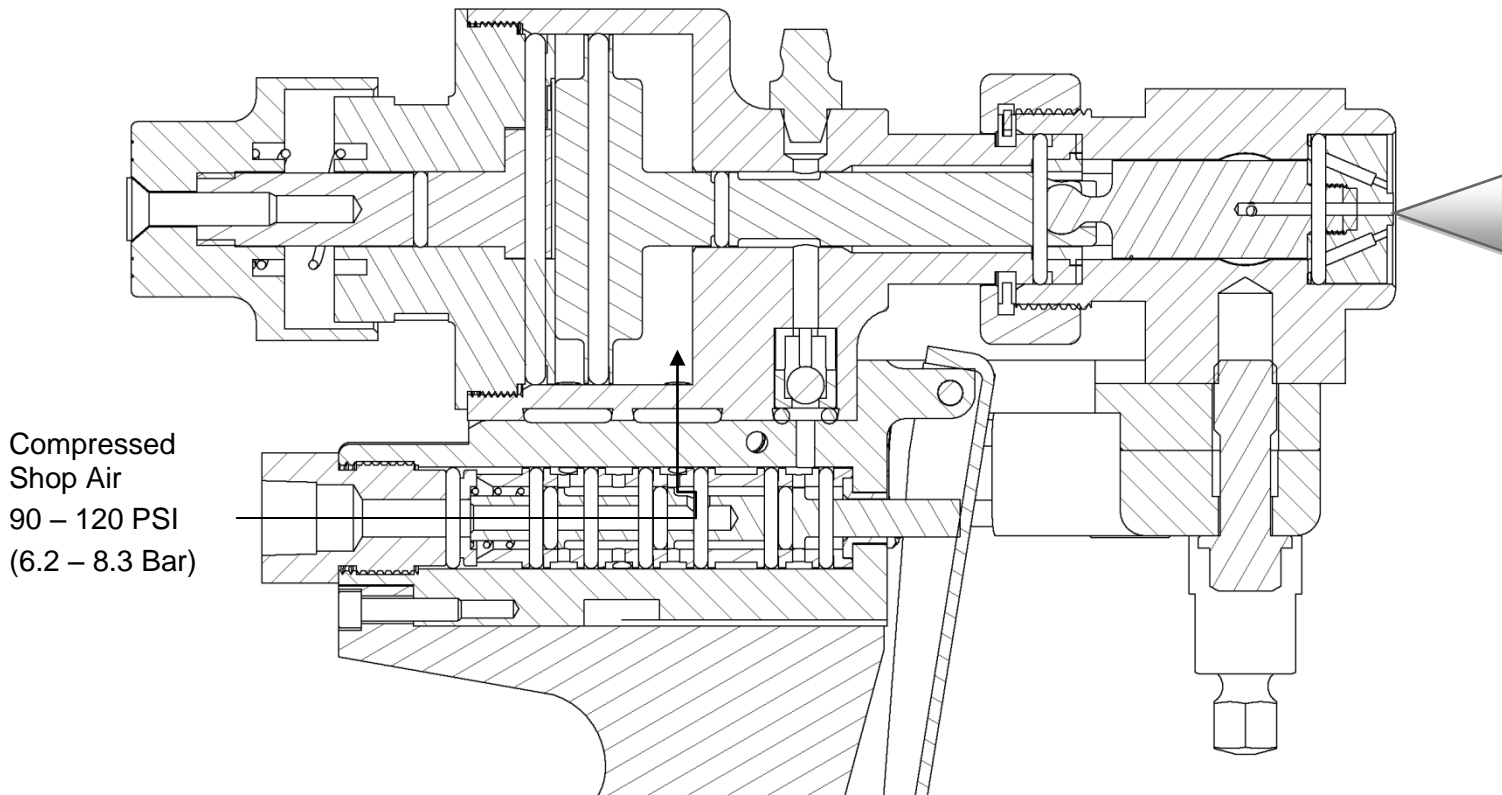
GUN OPERATION

Triggered Off



- Compressed shop air enters through the rear of the Air Manifold.
- The air passes around the Spool Valve to the Rear of the Piston in the Air Cylinder, moving the Piston (and Mixing Chamber) forward to the **CLOSED** position.
- 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.
- Purge air passes through the Spool Valve and the Check Valve, and into the Air Cylinder and Gun Block.
- 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.
- Purge air is also expelled from the PCT in a circular trajectory to keep the tip clean.

Triggered On









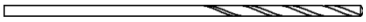
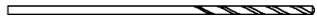


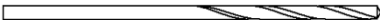
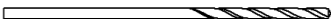
- Compressed shop air passes through the open Spool Valve, filling the cavity and pushing the Piston and Chamber backwards.
- The orifices in the Chamber are now captured within the Side Seals and exposed to high pressure chemical.
- High pressure chemical enters the chamber from the opposing orifices. The high pressure chemicals mix by impingement, and the mixture then travels down the chamber and out the PCT.




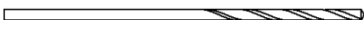


NOTE! While the trigger is pulled, the purge air is shutoff during spraying and the PCT will be retracted to the point of being flush with the front surface of the Gun Block.








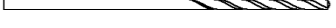


TROUBLE SHOOTING GUIDE














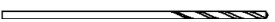
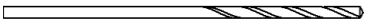
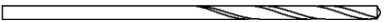


| PROBLEM | POSSIBLE CAUSE | SOLUTION |
|--|--|--|
| PCT not flush with Gun Block when Gun is triggered | Insufficient air pressure (minimum 90 psi, 6.2 bar) | Ensure 90 psi (6.2 Bar) |
| | Trigger Valve requires service | Rebuild, see page 14 |
| | Air Passages plugged | Clean, See page 14 |
| Material 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 | Air Manifold requires service | Rebuild, see page 15 |
| | 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 16 |
| | Air Passages plugged | Clean, see page 19 |
| 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 19 |
| Air leakage from Handle | Air Cylinder O-rings damaged | Replace, see page 16 |
| | Trigger Valve O-rings damaged | Replace, see page 14 |






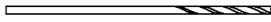
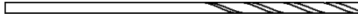
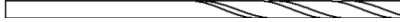







REFERENCE GUIDE

| 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-814-00 | 200477 | 1 | 1.25mm DRILL (.0492) | MIXING NOZZLE |  |
| | GU-03027 | 1 | #69 DRILL (.0292) | MIXING CHAMBER PORT |  |
| | RM-814-00 | 1 | CHAMBER #00 | - | - |
| GU-814-00X | 200478 | 1 | 1.35mm DRILL (.0531) | MIXING NOZZLE |  |
| | GU-03032 | 1 | #61 DRILL (.0390) | MIXING CHAMBER PORT |  |
| | RM-814-00X | 1 | CHAMBER #00X | - | - |
| GU-814-01 | 200479 | 1 | 1.45mm DRILL (.0571) | MIXING NOZZLE |  |
| | GU-03021 | 1 | #59 DRILL (.0410) | MIXING CHAMBER PORT |  |
| | RM-814-01 | 1 | CHAMBER #01 | - | - |
| 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-814-02 | GU-03024 | 1 | #51 DRILL (.0676) | MIXING NOZZLE |  |
| | GU-03023 | 1 | #56 DRILL (.0465) | MIXING CHAMBER PORT |  |
| | RM-814-02 | 1 | CHAMBER #02 | - | - |

| Chamber Kits (Continued) | | | | | |
|---------------------------------|--------------------|------------|---------------------------|---------------------|---|
| KIT NUMBER | PART NUMBER | QTY | DESCRIPTION (INCH) | FOR USE WITH | ILLUSTRATION |
| 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-814-03 | GU-03028 | 1 | #44 DRILL (.0860) | MIXING NOZZLE |  |
| | GU-03035 | 1 | #54 DRILL (.055) | MIXING CHAMBER PORT |  |
| | RM-814-03 | 1 | CHAMBER #03 | - | - |
| GU-814-04 | 200481 | 1 | 2.4mm DRILL (.0945) | MIXING NOZZLE |  |
| | GU-03054 | 1 | #50 DRILL (.0700) | MIXING CHAMBER PORT |  |
| | RM-814-04 | 1 | CHAMBER #04 | - | - |

| 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 | 1 | PCT FLAT TIP O-RING .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 | 1 | PCT FLAT TIP O-RING .016 | - |  |
| | RM-815-00 | 1 | PATTERN CONTROL TIP 00 | - |  |

| PCT Kits (Continued) | | | | | |
|-----------------------------|--------------------|------------|--------------------------|---------------------------|---|
| KIT NUMBER | PART NUMBER | QTY | DESCRIPTION | FOR USE WITH | ILLUSTRATION |
| 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 | 1 | PCT FLAT TIP O-RING .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 | 1 | PCT FLAT TIP O-RING .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 | 1 | PCT FLAT TIP O-RING .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 | 1 | PCT FLAT TIP O-RING .016 | - |  |
| | RM-815-02 | 1 | PATTERN CONTROL TIP 02 | - |  |

| PCT Kits (Continued) | | | | | |
|----------------------|-------------|-----|--------------------------|-----------------|---|
| KIT NUMBER | PART NUMBER | QTY | DESCRIPTION | FOR USE WITH | ILLUSTRATION |
| 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 | 1 | PCT FLAT TIP O-RING .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 | 1 | PCT FLAT TIP O-RING .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 | 1 | PCT FLAT TIP O-RING .016 | - |  |
| | RM-815-04 | 1 | PATTERN CONTROL TIP 04 | - |  |

| 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 |
| KT-814-00 | GU-814-00 | 1 | CHAMBER 00 W/ DRILLS |
| | GU-815-00 | 1 | PCT 00 RND W/ DRILLS |
| KT-814-00X | GU-814-00X | 1 | CHAMBER 00X W/ DRILLS |
| | GU-815-00X | 1 | PCT 00X W/ DRILLS |
| KT-814-01 | GU-814-01 | 1 | CHAMBER 01 W/ DRILLS |
| | GU-815-01 | 1 | PCT 01 RND W/ DRILLS |

| Chamber/PCT Kits (Continued) | | | |
|-------------------------------------|--------------------|------------|-----------------------|
| KIT NUMBER | PART NUMBER | QTY | DESCRIPTION |
| KT-814-01X | GU-814-01X | 1 | CHAMBER 01X W/ DRILLS |
| | GU-815-01X | 1 | PCT 01X RND W/ DRILLS |
| KT-814-02 | GU-814-02 | 1 | CHAMBER 02 W/ DRILLS |
| | GU-815-02 | 1 | PCT 02 RND W/ DRILLS |
| KT-814-02X | GU-814-02X | 1 | CHAMBER 02X W/ DRILLS |
| | GU-815-02X | 1 | PCT 02X RND W/ DRILLS |
| KT-814-03 | GU-814-03 | 1 | CHAMBER 03 W/ DRILLS |
| | GU-815-03 | 1 | PCT 03 RND W/ DRILLS |
| KT-814-04 | GU-814-04 | 1 | CHAMBER 04 W/ DRILLS |
| | GU-815-04 | 1 | PCT 04 RND W/ DRILLS |

| Soft Chamber Kits | | |
|--------------------------|------------|---------------------------------------|
| PART NUMBER | QTY | DESCRIPTION |
| GU-814-0000 | 1 | SOFT CHAMBER KIT WITH CLEANOUT DRILLS |
| GU-814-S000 | 1 | SOFT CHAMBER KIT WITH CLEANOUT DRILLS |
| GU-814-S00 | 1 | SOFT CHAMBER KIT WITH CLEANOUT DRILLS |
| GU-814-S01 | 1 | SOFT CHAMBER KIT WITH CLEANOUT DRILLS |
| GU-814-S01X | 1 | SOFT CHAMBER KIT WITH CLEANOUT DRILLS |
| GU-814-S02 | 1 | SOFT CHAMBER KIT WITH CLEANOUT DRILLS |
| GU-814-S02X | 1 | SOFT CHAMBER KIT WITH CLEANOUT DRILLS |

***FOR USE WITH PLASTIC SIDE SEALS (GU-817-90D)
NOT COMPATIBLE WITH STANDARD SIDE SEALS**

| Air Manifold Trigger Rebuild Kit (KT-826) | | |
|--|------------|----------------------|
| PART NUMBER | QTY | DESCRIPTION |
| GU-825-1 | 1 | SPOOL VALVE LINER |
| GU-825-2 | 1 | LINER BUSHING |
| GU-824 | 1 | SPOOL VALVE SPRING |
| OR-803 | 7 | O-RING #012 VITON |
| OR-00002A | 3 | O-RING #008 VITON |
| OR-804 | 1 | O-RING 2MMX4MM BUNA |
| OR-00037B | 2 | QUAD RING #011 VITON |

Air Cylinder Rebuild Kit (KT-801)

| PART NUMBER | QTY | DESCRIPTION |
|-------------|-----|-----------------------|
| OR-00026A | 2 | O-RING #129 VITON |
| OR-00043B | 2 | O-RING #010 80D AFLAS |
| OR-804 | 1 | O-RING 2mmx4mm BUNA |
| OR-00037B | 2 | QUAD RING #011 VITON |
| OR-00042A | 1 | #016 O-RING |
| GU-829 | 1 | A/P CHECK VALVE |
| GU-830 | 1 | AIR CYLINDER BUSHING |

AP-2 O-Ring Kit (KT-827)

| PART NUMBER | QTY | DESCRIPTION |
|-------------|-----|-----------------------|
| OR-800 | 2 | #013 BACK UP RING |
| OR-801A | 2 | O-RING #013 80D AFLAS |
| OR-803 | 7 | O-RING #012 VITON |
| OR-804 | 1 | O-RING 2MMX4MM BUNA |
| OR-805 | 4 | #108 VITON O-RING |
| OR-00002A | 3 | O-RING #008 VITON |
| OR-00026A | 2 | O-RING #129 VITON |
| OR-00037B | 2 | QUAD RING #011 VITON |
| OR-00042A | 1 | #016 O-RING |
| OR-00043B | 4 | O-RING #010 80D AFLAS |

PMC Recommended O-Ring Grease

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

Screen Sizes

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

| A & R Screen Screw Assembly Kits | | | |
|---|--------------------|------------|-----------------------|
| KIT NUMBER | PART NUMBER | QTY | DESCRIPTION |
| KT-819-R | GU-819-R | 1 | R SCREEN SCREW |
| | GU-04007 | 1 | SCREEN SCREW SEAL |
| | OR-800 | 1 | #013 BACK UP RING |
| | OR-801 | 1 | O-RING #013 80D AFLAS |
| KT-819-A | GU-819-A | 1 | A SCREEN SCREW |
| | GU-04007 | 1 | SCREEN SCREW SEAL |
| | OR-800 | 1 | #013 BACK UP RING |
| | OR-801 | 1 | O-RING #013 80D AFLAS |

| Recommended Spare Parts | | | |
|--------------------------------|------------|---|-------------|
| PART NUMBER | QTY | DESCRIPTION | PAGE |
| KT-826 | 1 | AIR MANIFOLD REBUILD KIT | 26 |
| KT-801 | 1 | AIR CYLINDER REBUILD KIT | 27 |
| KT-817-90 | 1 | SIDE SEAL KIT | - |
| GU-818-40 | 4 | FILTER SCREEN 40 MESH | 27 |
| GU-818-60 | 4 | FILTER SCREEN 60 MESH | 27 |
| GU-818-80 | 4 | FILTER SCREEN 80 MESH (STANDARD) | 27 |
| GU-04007 | 2 | SCREEN SCREW SEAL | 13 |
| OR-00043B | 8 | O-RING #010 80D AFLAS | 13 |
| OR-801A | 8 | O-RING #013 80D AFLAS | 13 |
| SP-04005 | 2 | SPRING; SIDE SEAL | 13 |
| GU-020 | 1 | MANUAL VALVE ASSEMBLY | 31 |
| KT-850 | 2 | CHECK VALVE ASSEMBLY | 29 |
| OR-00042A | 2 | #016 O-RING | 37 |
| GU-829 | 1 | A/P CHECK VALVE | 35 |
| TN-831 | 2 | 4-40 X ½ SHCS | 37 |
| TL-04003 | 1 | GREASE TUBE | 41 |
| OR-800 | 8 | #013 BACK UP RING | 13 |
| KT-827 | 1 | AP-2 O-RING KIT | 27 |

| 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-815-52 | 1 | PCT FLAT TIP RETAINER ASSEMBLY |
| GU-815-53 | 1 | POUR NOZZLE |
| * 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 | #016 O-RING |
| a | 1 | SIDE SEAL; DELRIN |

*DENOTES PARTS IN THE GU-815-52

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

| Check Valve Assembly (KT-850) | | |
|--|------------|-----------------------|
| PART NUMBER | QTY | DESCRIPTION |
| GU-851 | 4 | CHECK VALVE SEAT |
| GU-852 | 2 | CHECK VALVE SPRING |
| GU-853 | 2 | 1/4" CHECK VALVE BALL |

| Manual Valve Software Kit (KT-020) | | |
|---|------------|-------------------------------|
| PART NUMBER | QTY | DESCRIPTION |
| GU-LOCTITE | 1 | LOCTITE #242 |
| GU-015 | 4 | O-RING #007 AFLAS |
| GU-016 | 4 | #007 VITON CURVED BACKUP RING |

| 1/4" Unheated Stainless Steel Hose Assy. | |
|---|----------------------------|
| PART NUMBER | DESCRIPTION |
| MA-41 | HOSE PACKAGE KIT, UNHEATED |
| MA-41A | REPLACEMENT HOSE, "A" SIDE |
| MA-41R | REPLACEMENT HOSE, "R" SIDE |



Optional MA-41 Kit shown on AP-2 Gun

Flush Tanks

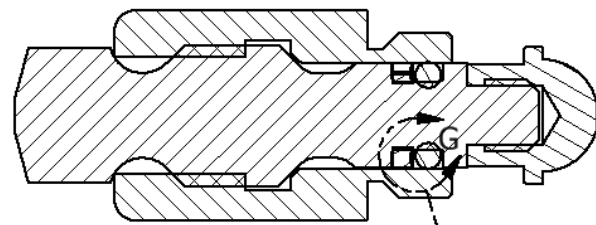
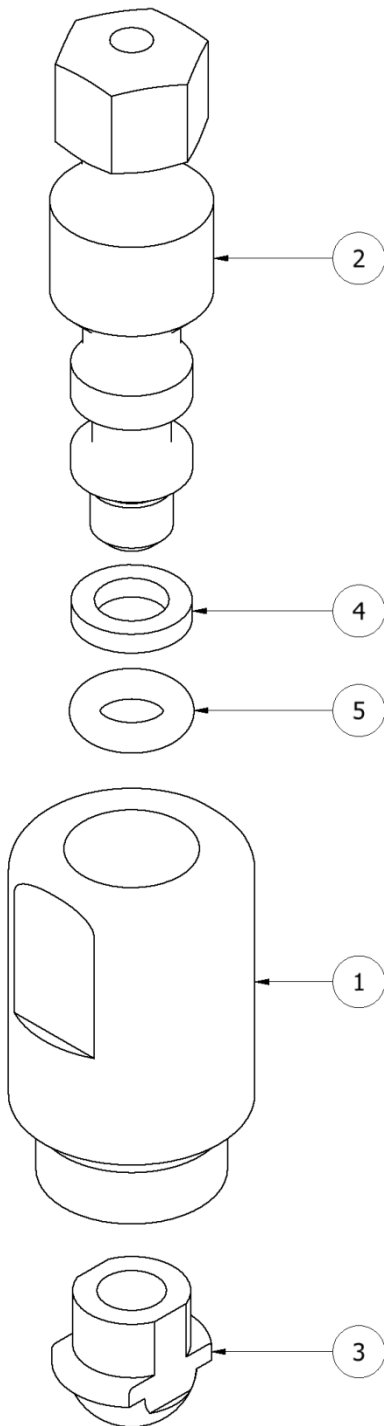
Optional 2.5 Gallon Flush Tank (200426, 200427) and 1QT Mini Flush Tank (200216, 200217) shown.



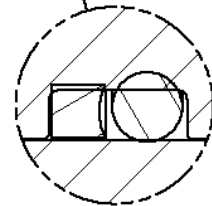
PARTS IDENTIFICATION

Manual Valve Assembly

(GU-020)



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

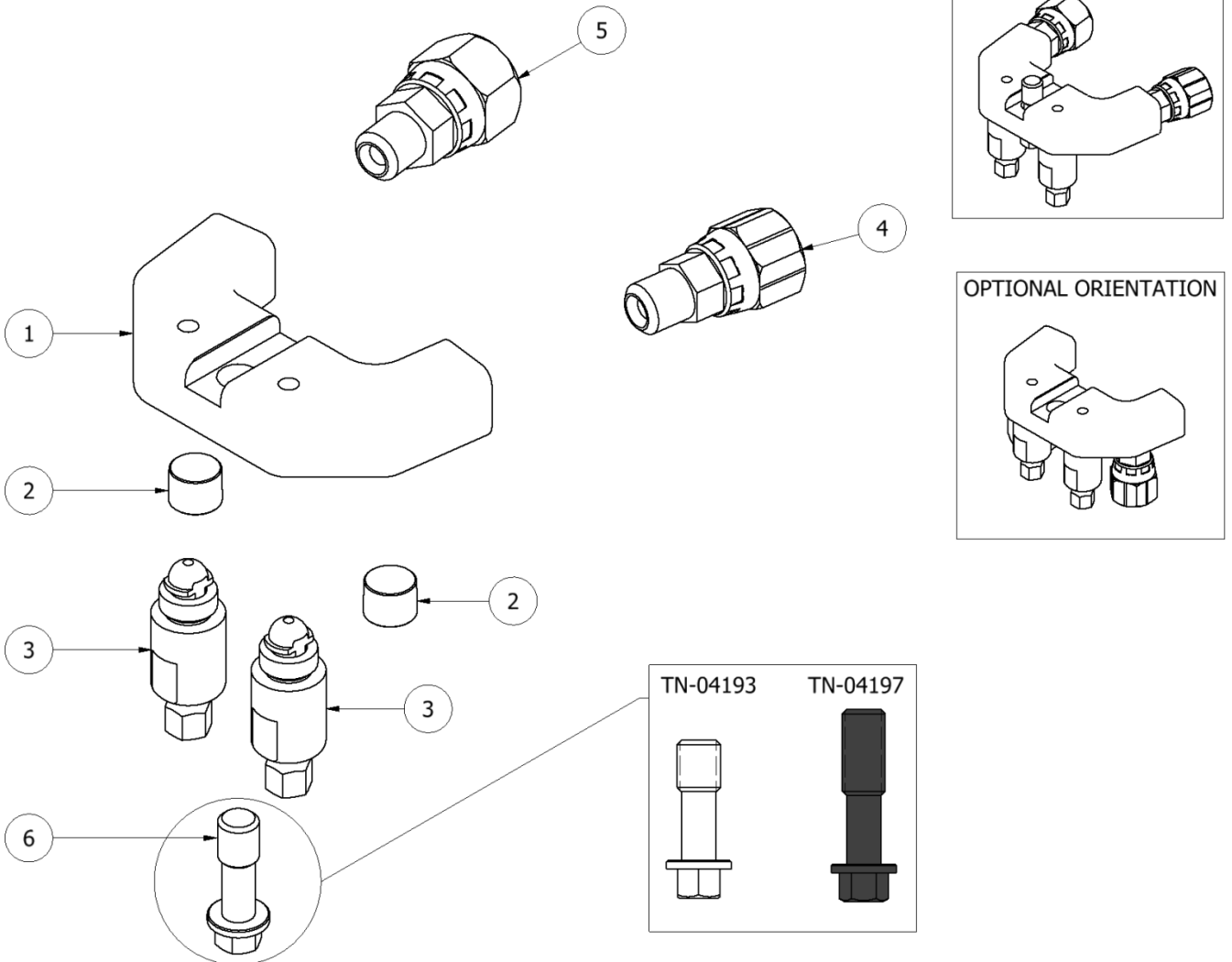


NOTE: The orientation of the back-up ring is important. The concave face must point towards the O-Ring.

| MANUAL VALVE ASSEMBLY (GU-020) | | | |
|--------------------------------|-----|-------------|------------------------------|
| 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 |

Coupling Block Assembly

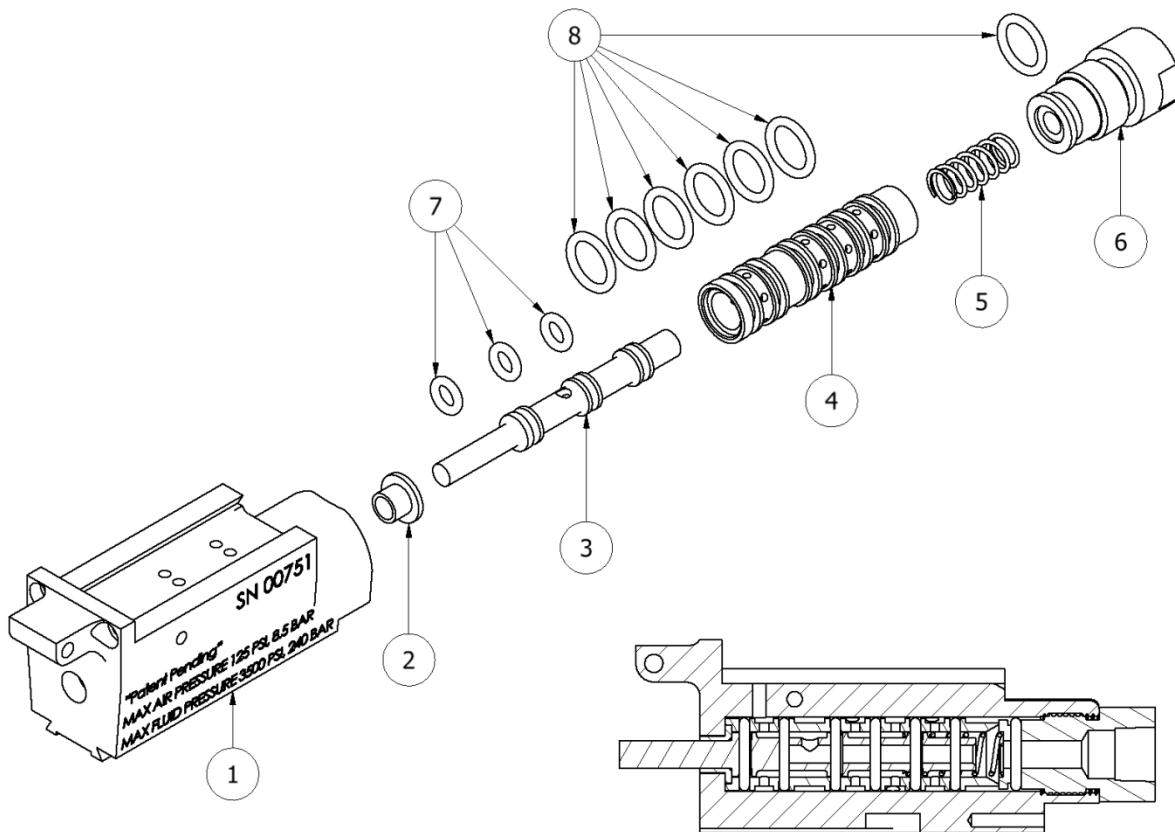
(GU-04001)



| COUPLING BLOCK ASSEMBLY (GU-04001) | | | |
|------------------------------------|-----|-------------|--|
| 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 |
| | 1 | TN-04197 | COUPLING BLOCK STABILIZER MOUNTING SCREW |

Air Manifold Assembly

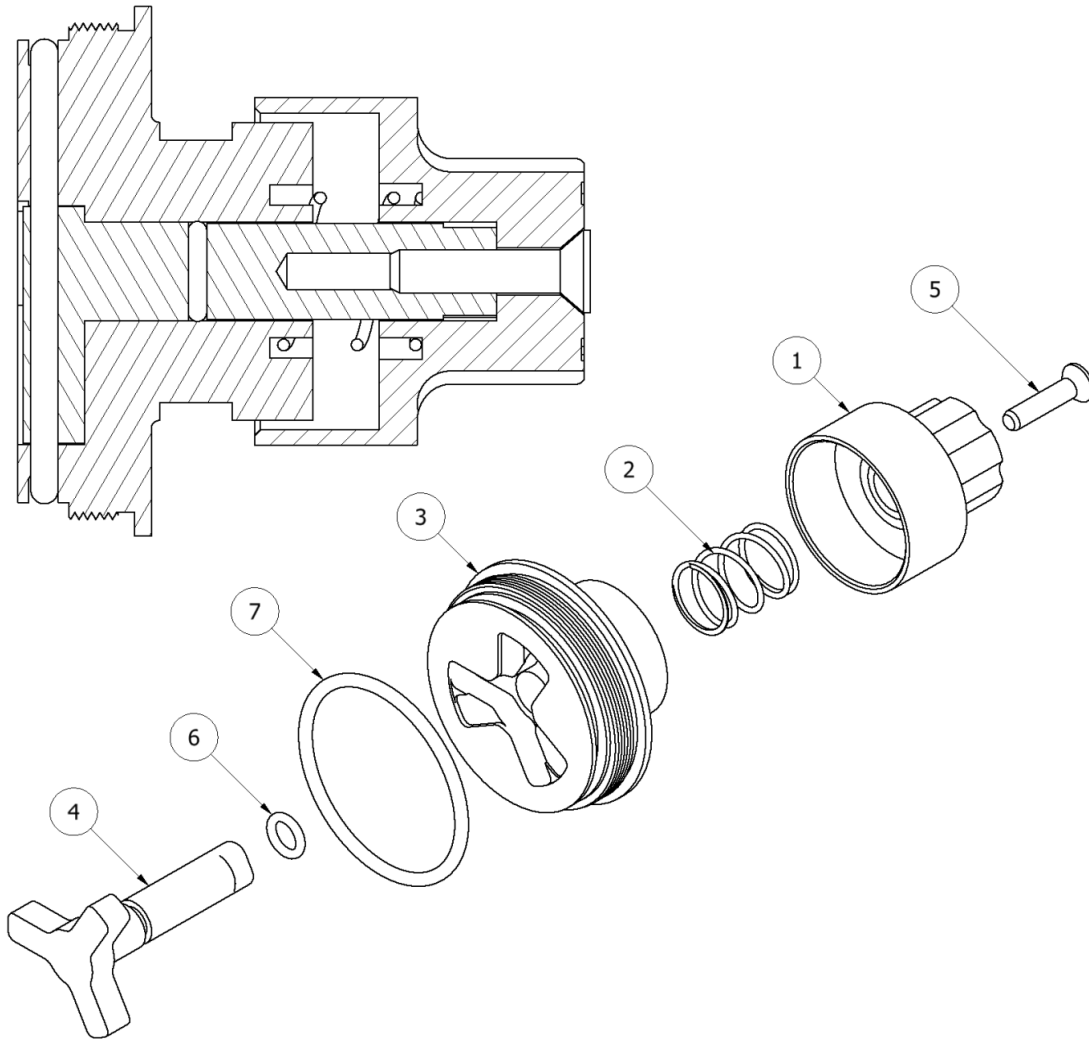
(GU-843)



AIR MANIFOLD ASSEMBLY (GU-843)

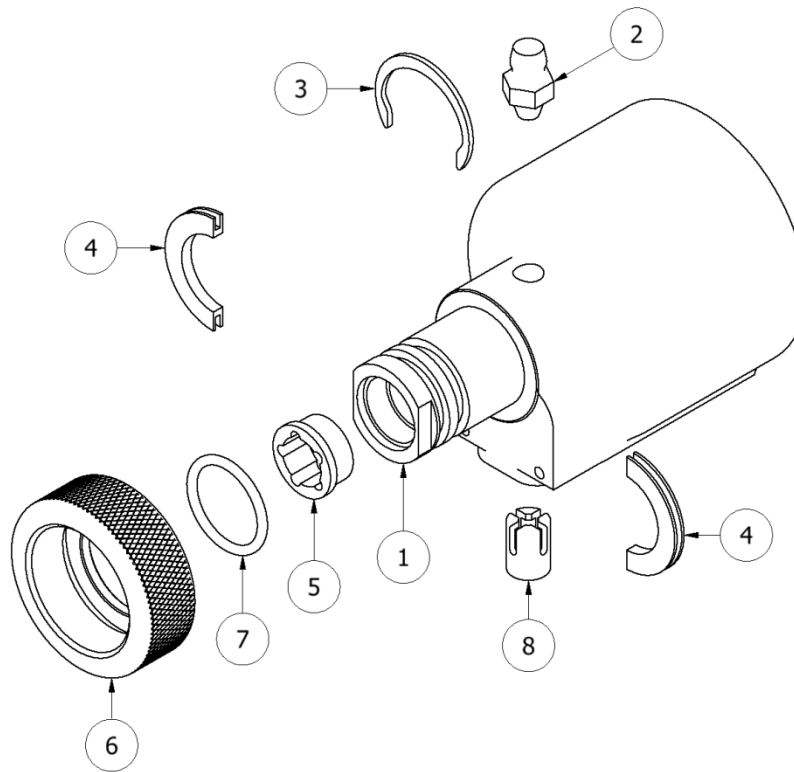
| ITEM | QTY | PART NUMBER | DESCRIPTION |
|------|-----|-------------|--------------------|
| 1 | 1 | GU-826 | AIR MANIFOLD |
| 2 | 1 | GU-825-2 | LINER BUSHING |
| 3 | 1 | GU-823 | SPOOL VALVE |
| 4 | 1 | GU-825-1 | SPOOL VALVE LINER |
| 5 | 1 | GU-824 | SPOOL VALVE SPRING |
| 6 | 1 | GU-833 | HOSE ADAPTER |
| 7 | 3 | OR-00002A | O-RING #008 VITON |
| 8 | 7 | OR-803 | O-RING #012 VITON |

End Cap Assembly (GU-844)



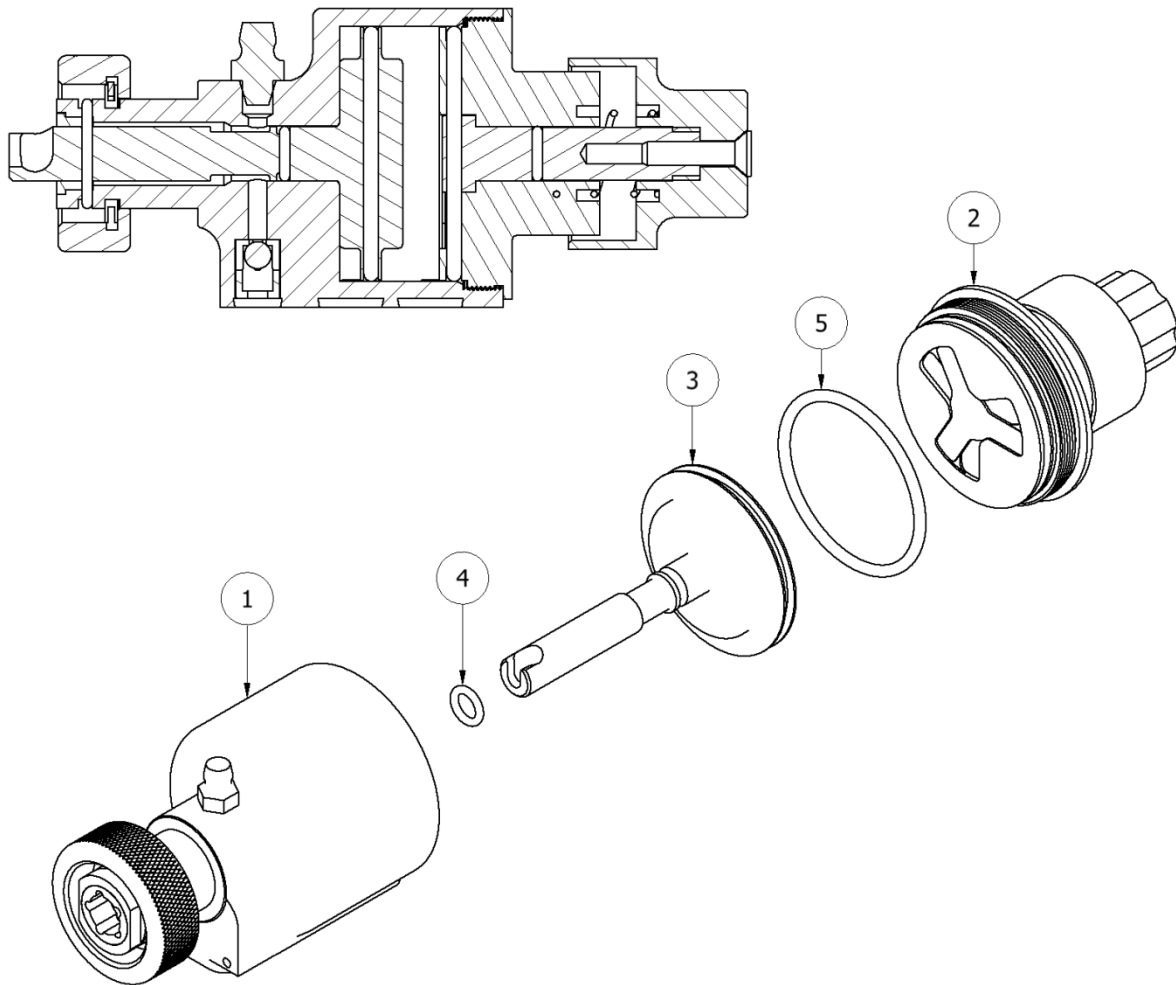
| END CAP ASSEMBLY (GU-844) | | | |
|---------------------------|-----|-------------|-----------------------|
| ITEM | QTY | PART NUMBER | DESCRIPTION |
| 1 | 1 | GU-804 | LOCK KNOB |
| 2 | 1 | GU-806 | SPRING |
| 3 | 1 | GU-803 | CYLINDER END CAP |
| 4 | 1 | GU-807 | TWO POSITION STOP |
| 5 | 1 | GU-831 | RETAINING SCREW |
| 6 | 1 | OR-00043B | O-RING #010 80D AFLAS |
| 7 | 1 | OR-00026A | O-RING #129 VITON |

Air Cylinder Assembly (GU-801A)



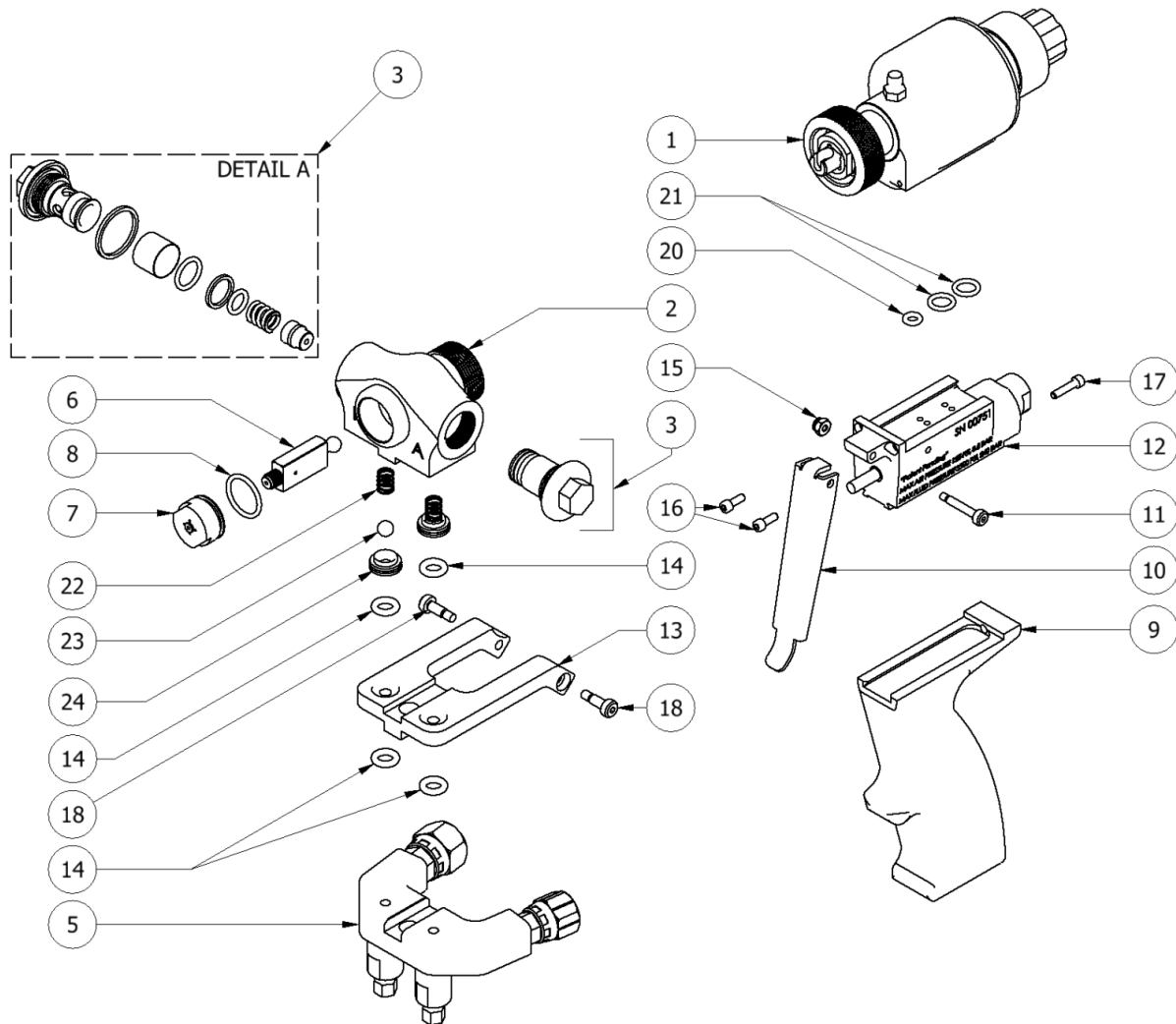
| AIR CYLINDER ASSEMBLY (GU-801A) | | | |
|--|-----|-------------|-------------------------------|
| ITEM | QTY | PART NUMBER | DESCRIPTION |
| 1 | 1 | GU-801 | AIR CYLINDER |
| 2 | 1 | TN-04186 | GREASE FITTING |
| 3 | 1 | GU-836 | SIDE MOUNT EXT RETAINING RING |
| 4 | 2 | GU-837 | RETAINER RING SPLIT-SET |
| 5 | 1 | GU-830 | AIR CYLINDER BUSHING |
| 6 | 1 | GU-812 | LOCK COLLAR |
| 7 | 1 | OR-00042A | #016 O-RING |
| 8 | 1 | GU-829 | A/P CHECK VALVE |

Complete Air Cylinder Assembly (GU-845)



| COMPLETE AIR CYLINDER ASSEMBLY (GU-845) | | | |
|---|-----|-------------|----------------------------|
| ITEM | QTY | PART NUMBER | DESCRIPTION |
| 1 | 1 | GU-801A | AP-2 AIR CYLINDER ASSEMBLY |
| 2 | 1 | GU-844 | AP-2 END CAP ASSEMBLY |
| 3 | 1 | GU-802 | PISTON |
| 4 | 1 | OR-00043B | O-RING #10 80D AFLAS |
| 5 | 1 | OR-00026A | O-RING #129 VITON |

Air Purge Spray and Pour Gun (GU-850)

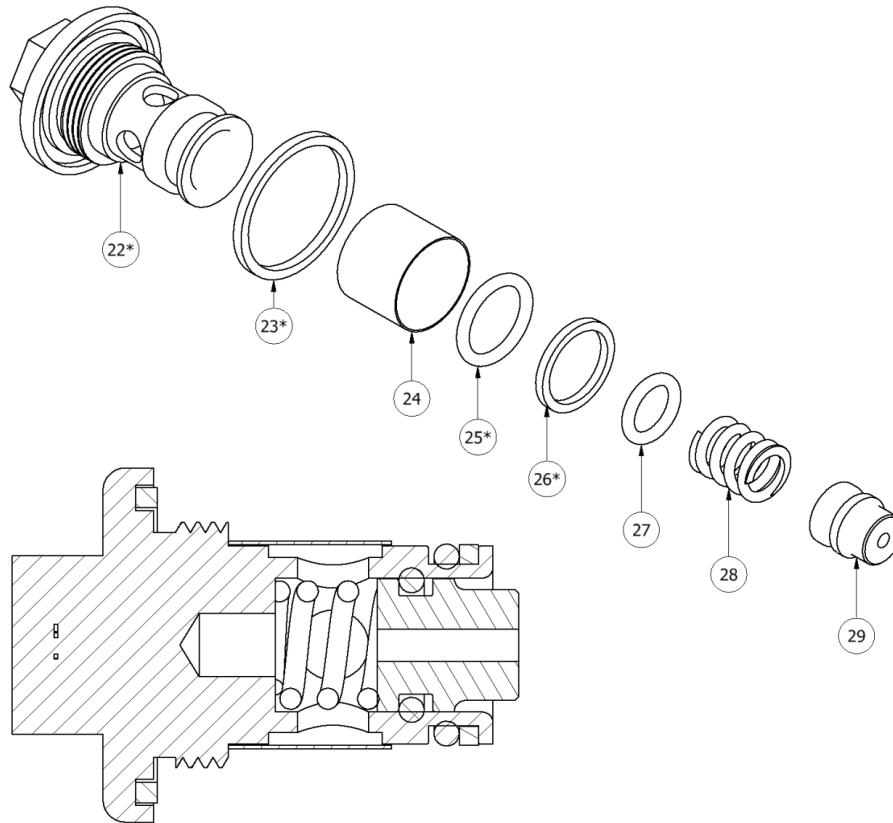


| AIR PURGE SPRAY AND POUR GUN (GU-850) | | | |
|--|------------|--------------------|--------------------------------|
| ITEM | QTY | PART NUMBER | DESCRIPTION |
| 1 | 1 | GU-845 | COMPLETE AIR CYLINDER ASSEMBLY |
| 2 | 1 | GU-816 | GUN BLOCK |
| 3 | 2 | ASSEMBLY | A/R SCREEN SCREW ASSEMBLY |
| 5 | 1 | GU-04001 | COUPLING BLOCK ASSEMBLY |
| 6* | 1 | GU-814-000 | CHAMBER 000 W/ DRILLS |
| | 1 | GU-814-00 | CHAMBER 00 W/ DRILLS |

| AIR PURGE SPRAY AND POUR GUN (GU-850) | | | |
|--|------------|----------------------|--------------------------------|
| ITEM | QTY | PART NUMBER | DESCRIPTION |
| 6* | 1 | GU-814-00X | CHAMBER 00X W/ DRILLS |
| | 1 | GU-814-01 | CHAMBER 01 W/ DRILLS |
| | 1 | GU-814-01X | CHAMBER 01X W/ DRILLS |
| | 1 | GU-814-02 | CHAMBER 02 W/ DRILLS |
| | 1 | GU-814-02X | CHAMBER 02X W/ DRILLS |
| | 1 | GU-814-03 | CHAMBER 03 W/ DRILLS |
| | 1 | GU-814-04 | CHAMBER 04 W/ DRILLS |
| 7 | 1 | GU-815-000 | PCT 000 RND W/ DRILLS |
| | 1 | GU-815-00 | PCT 00 RND W/ DRILLS |
| | 1 | GU-815-00X | PCT 00X RND W/ DRILLS |
| | 1 | GU-815-01 | PCT 01 RND W/ DRILLS |
| | 1 | GU-815-01X | PCT 01X RND W/ DRILLS |
| | 1 | GU-815-02 | PCT 02 RND W/ DRILLS |
| | 1 | GU-815-02X | PCT 02X RND W/ DRILLS |
| | 1 | GU-815-03 | PCT 03 RND W/ DRILLS |
| 1 | GU-815-04 | PCT 04 RND W/ DRILLS | |
| 8 | 1 | OR-00042A | #016 O-RING |
| 9 | 1 | GU-827-1 | GUN HANDLE #1 |
| 10 | 1 | GU-828 | TRIGGER |
| 11 | 1 | TN-04190 | SHOULDER SCREW |
| 12 | 1 | GU-843 | AIR MANIFOLD ASSEMBLY |
| 13 | 1 | GU-842 | HEAD LATCH |
| 14 | 4 | OR-805 | #108 VITON O-RING |
| 15 | 1 | TN-04191 | 4-40 ELASTIC STOP NUT |
| 16 | 2 | TN-830 | 4-40 X 5/16 SHCP |
| 17 | 1 | TN-831 | 4-40 X 1/2 SHCP |
| 18 | 2 | GU-808 | 5/32 X 5/16 6-32 SHOULDER BOLT |
| 20 | 1 | OR-804 | O-RING 2MMX4MM BUNA |
| 21 | 2 | OR-00037B | QUAD RING #011 VITON |
| 22 | 2 | GU-852 | CHECK VALVE SPRING |
| 23 | 2 | GU-853 | ¼" CHECK VALVE BALL |
| 24 | 2 | GU-851 | CHECK VALVE SEAT |

*Also available as soft chambers (requires plastic side seals)

Screen Screw Assembly

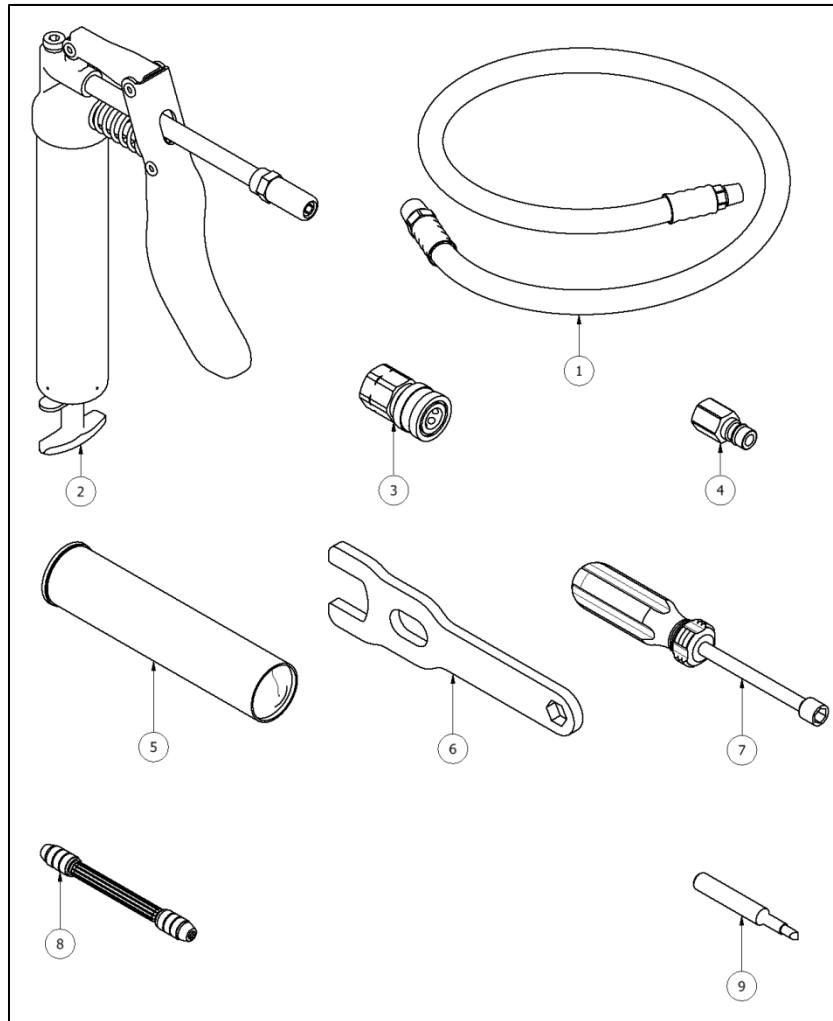


| SCREEN SCREW COMPONENTS | | | |
|--------------------------------|------------|--------------------|---|
| ITEM | QTY | PART NUMBER | DESCRIPTION |
| 22 | 1 | GU-819-R * | "R" SCREEN SCREW |
| | 1 | GU-819-A * | "A" SCREEN SCREW |
| 23 | 1 | GU-04007 * | SCREEN SCREW SEAL |
| 24 | 1 | GU-818-40 | FILTER SCREEN; 40 MESH |
| | 1 | GU-818-60 | FILTER SCREEN; 60 MESH |
| | 1 | GU-818-80 | FILTER SCREEN 80 MESH (STANDARD) |
| 25 | 1 | OR-801 * | O-RING #013 80D AFLAS |
| 26 | 1 | OR-800 * | #013 BACK UP RING |
| 27 | 1 | OR-00043B | O-RING #010 80D AFLAS |
| 28 | 1 | SP-04005 | SPRING; SIDE SEAL |
| 29** | 1 | GU-817-90 | SIDE SEAL |
| | 1 | GU-817-180 | SIDE SEAL (FOR CHAMBERS 03 & 04) |

*Included in KT-819-R and KT-819-A (Pg. 28)

**Available in plastic (GU-817-90D) for soft chambers

List of Tools

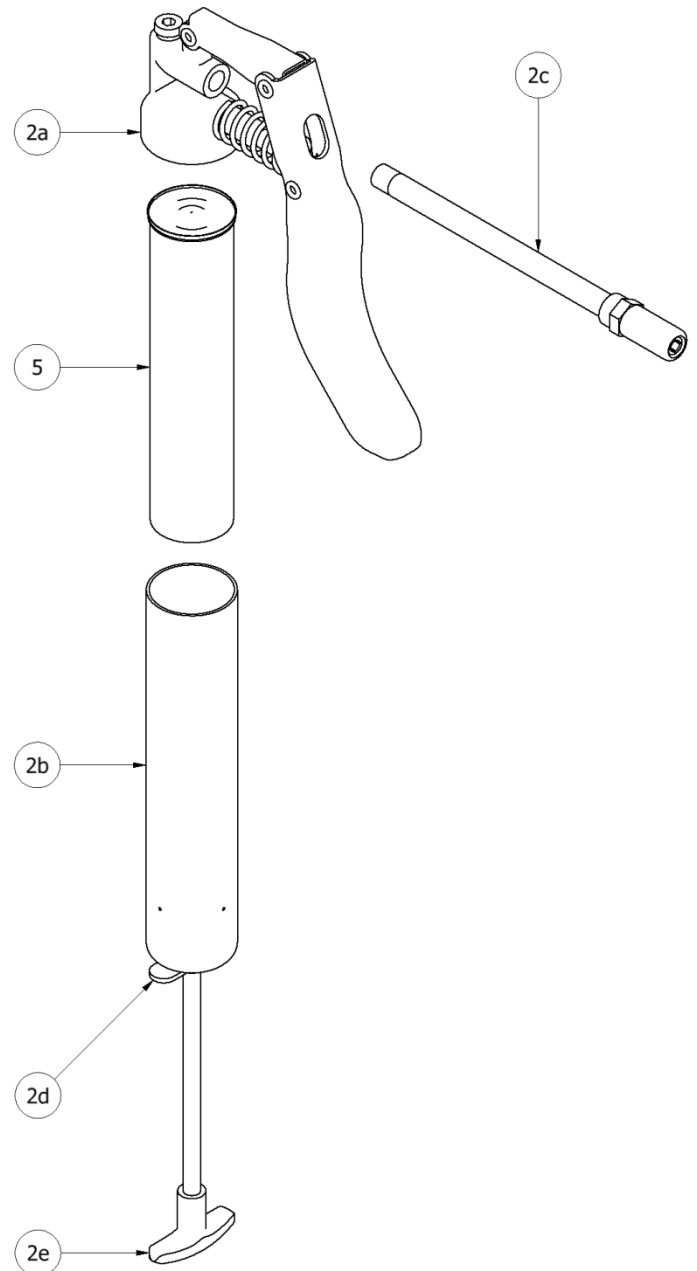


| LIST OF TOOLS | | | |
|----------------------|------------|--------------------|---------------------------|
| ITEM | QTY | PART NUMBER | DESCRIPTION |
| 1 | 1 | GU-04019 | AIR HOSE |
| 2 | 1 | TL-00002 | GREASE GUN |
| 3 | 1 | GU-04021 | QUICK DISCONNECT; FEMALE |
| 4 | 1 | GU-04022 | QUICK DISCONNECT; MALE |
| 5 | 1 | TL-04003 | GREASE TUBE |
| 6 | 1 | TL-09 | OPEN END WRENCH |
| 7 | 1 | TL-04001 | 5/16 SPINTITE; NUT DRIVER |
| 8 | 1 | GP-00101 | DOUBLE ENDED PIN VISE |
| 9 | 1 | 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 (2, Pg. 39).
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 |

*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 |

TECHNICAL SERVICE BULLETINS

April 24, 2013

REF: AP-2 SCREEN SCREW IMPROVEMENT PART NUMBER GU-819-A and GU-819-R

All AP-2 spray guns starting with serial #347 Screen Screw have the improved screen screws. The screen screws have been improved to extend the service life of the Screen Screw O-Ring when operating at high pressure. The improvement entails a back up ring (OR-800) in addition to the O-Ring (OR-801). See Details below.

The original screen screw **Will Not** accept the backup ring and o-ring. The customers using the original Screen Screw can continue to use this design. Any new Screen Screws sold will be the new style and will be ordered under Part Numbers KT-819-A (A side) and KT-819-R (Resin Side).

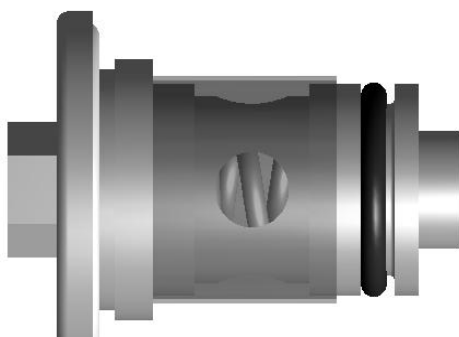
These part numbers will include the following, Screen Screw (GU-819-A or GU-819-R, O-Ring (OR-801), backup ring (OR-800), Screen Screw Gasket (GU-04007).

NOTE: The new style Screen Screw also has a larger hex on the end for easy removal from the gun block.

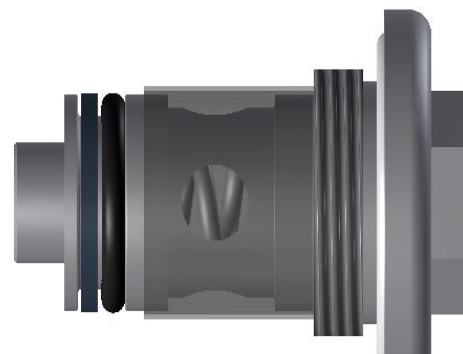
Backup Ring (PN# OR-800) must be installed as shown on the detail below.

Backup Ring PN# (OR-800)

O-Ring PN# (OR-801A)



Original Style



Improved Style

August 16, 2013

REF: AP-2 STABILIZER BAR KIT # KT-828

See exploded drawing and parts details attached.

PMC has recently added the #KT-828 Stabilizer Bar Kit to all guns produced after this date. The new Stabilizer Kit will help prevent racking to the gun caused by the chemical hoses dangling during the spray operation. The addition of the Stabilizer Bar creates a more rigid gun assembly which leads to an improved alignment between the chamber and the side seals. The result is less wear on the chamber and side seals and longer parts life.

The #KT-828 Stabilizer Bar Kit can be field retrofit onto any AP-2 gun manufactured prior to this date. The installation is quite easy and only requires two Allen wrenches, 5/16" spin-tite and PMC grease.

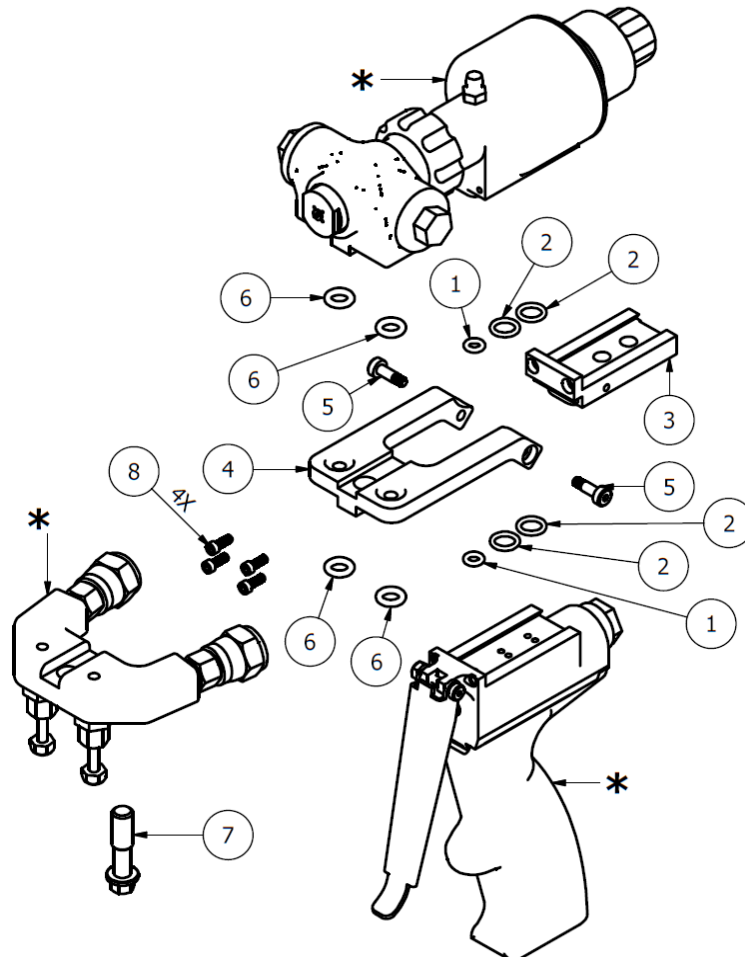
Installation Instructions

- 1) If the gun is connected to the coupling block turn off the manual valves and remove the gun from the coupling block.
- 2) Remove two TN-830 socket head cap screws from front of existing trigger manifold.
- 3) Slide off the air cylinder from the trigger manifold.
- 4) Remove all old O-rings.
- 5) Clean the parts and apply a small amount of PMC grease into each O-ring location.
- 6) Install all new supplied O-rings as per the exploded view.
- 7) Install the Riser Block #GU-841 onto the air cylinder.
- 8) Install the trigger manifold onto the Riser Block.
- 9) Secure with 4 supplied screws #TN-830.
- 10) Install Stabilizer Bar #GU-842 onto Riser Block # GU-841. Secure with two supplied shoulder bolts #GU-828.
- 11) Insert 4 O-rings #OR-805 into Stabilizer Bar.
- 12) Secure Gun to Coupling Block using the supplied Coupling Block Screw # TN-04197.

You are now ready to Spray!

AP-2 Stabilizer Kit

(KT-828)



| AP-2 STABILIZER KIT (KT-828) | | | |
|------------------------------|-----|-------------|------------------------------|
| ITEM | QTY | PART NUMBER | DESCRIPTION |
| 1 | 2 | OR-804 | O-RING |
| 2 | 4 | OR-00037B | QUAD O-RING |
| 3 | 1 | GU-841 | RISER BLOCK |
| 4 | 1 | GU-842 | STABILIZER |
| 5 | 2 | GU-808 | SHOULDER BOLT |
| 6 | 4 | OR-805 | O-RING |
| 7 | 1 | TN-04197 | COUPLING BLOCK SCREW (BLACK) |
| 8 | 4 | TN-830 | SHCS BOLT |

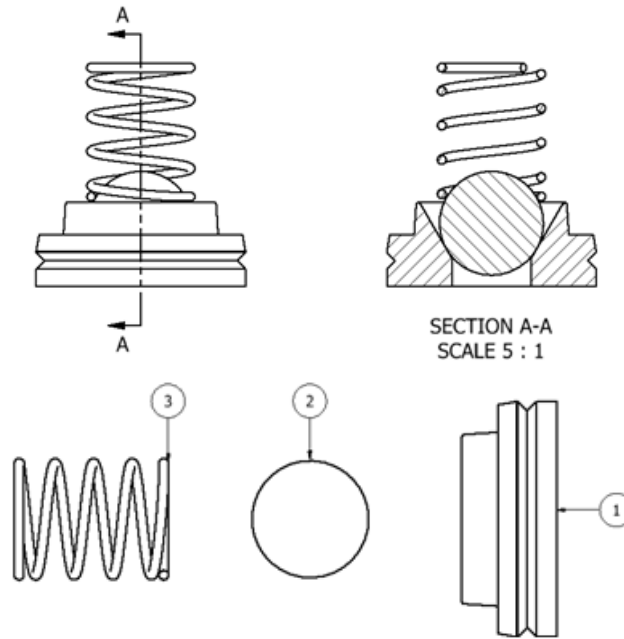
*Not included in kit KT-828

August 26, 2014

Ref: AP-2 New Fluid Check Valve Assembly # KT-850

PMC has recently introduced a more robust, less expensive fluid check valve for the AP-2 air purge gun. Part number KT-850 Check Valve Assembly Set now replaces the former GU-820 check valve. All PMC AP-2 guns manufactured after August 15, 2014 have been fitted with the new check valves. In the past you would be required to order an individual check valve under part number GU-820. The new check valve assembly set, part number KT-850, actually includes the components for TWO check valves (two springs, two balls, two check valve seats) plus two extra check valve seats. The spring and the ball can be cleaned and re-used. The valve seats in cases of a severe cross over may be damaged during disassembly and thus the reason for the extra seats. The cost of the KT-850 with all the components included above is less than the cost of one of the previous GU-820 check valves.

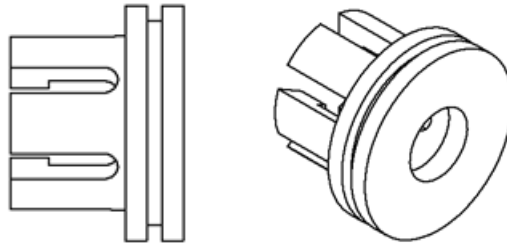
New Style Check Valve Assembly # KT-850



| Check Valve Assembly (KT-850) | | |
|-------------------------------|-------------|--------------------------|
| QTY | PART NUMBER | DESCRIPTION |
| 4 | GU-851 | CHECK VALVE SEAT, AP-2 |
| 2 | GU-852 | CHECK VALVE SPRING, AP-2 |
| 2 | GU-853 | CHECK VALVE BALL, AP-2 |



Old Style Check Valve # GU-820



June 13, 2017

Ref: AP-2 Manual Valve Assembly # GU-020

All new style manual valves contain a red back up ring that must be installed in the proper orientation. When rebuilding manual valves (GU-020), please follow the guidelines below. **Note the design includes left handed threads and thread sealant.** As always, we recommend using PMC O-Ring grease for all O-Rings and sealing surfaces.

DISASSEMBLY: (Heat is not required to loosen Red Loctite.) NOTE: The threads are **left handed** and must be **turned clockwise to loosen.**

ASSEMBLY:

1. Use Part # GP-Lube-Grease (REF Table: PMC Recommended O-Ring Grease) to grease the groove of the Manual Valve Stem (GU-021).
2. Check the Red Back-up ring (OR-016) for any imperfections before using.
3. Place **FLAT SIDE FACE DOWN** in the groove of the Manual Valve Stem behind the first stop past the threads. Reference picture below.
4. Next the Black O-Ring (OR-015) is to be installed on in the same fashion in front of the Red O-Ring.
5. Lubricate the stem and housing and then screw the stem into the Manual Valve Housing (GU-022).
6. Dry off any excess lubricant.
7. Apply Red Loctite and turn **COUNTER CLOCKWISE** into Manual Valve Seat (GU-023) until hand tight.
8. Wipe clean to remove any excess Red Loctite.
9. To lock in, tighten **COUNTER CLOCKWISE** less than ¼ turn.
10. Wipe clean again.
11. Use a nut driver to test for proper movement.
12. Keep in **EXTENDED** position and let sit for 24 hours to allow the Red Loctite to completely cure.

