

# **Xtreme Air Purge Spray & Pour Gun** Service Manual

Ref. # 202745 Revision 1.6 April 17, 2023



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

CE

# Polyurethane Machinery Corp.

1 Komo Drive, Lakewood, NJ 08701 732-415-4400 URL: <u>http://www.polymacusa.com</u>



# TABLE OF CONTENTS

TABLE OF CONTENTS	
WARRANTY	1
SAFETY AND HANDLING	3
CHARACTERISTICS	-
TECHNICAL SPECIFICATIONS	
GENERAL DESCRIPTION	-
INSTALLATION AND START UP	
EXPANSION PLUG OPERATION	8
SHUTDOWN PROCEDURES	9
LOSS OF AIR PRESSURE/EMERGENCY SHUT-OFF	9
MAINTENANCE	10
GUN BLOCK AND MIXING CHAMBER REMOVAL	12
SCREEN SCREW AND COMPONENT MAINTENANCE	
AIR CYLINDER MAINTENANCE	15
SPOOL VALVE MAINTENANCE	
TRIGGERED OFF	18
TRIGGERED ON	
	20
TROUBLESHOOTING GUIDE	20
PARTS IDENTIFICATION	21
PARTS IDENTIFICATION	<b>21</b> 21
PARTS IDENTIFICATION FINAL GUN ASSEMBLY 202409 202410: SCREEN SCREW ASSEMBLY	<b>21</b> 21 23
PARTS IDENTIFICATION	<b>21</b> 21 23
PARTS IDENTIFICATION FINAL GUN ASSEMBLY 202409 202410: SCREEN SCREW ASSEMBLY	<b>21</b> 21 23 24
PARTS IDENTIFICATION FINAL GUN ASSEMBLY 202409 202410: SCREEN SCREW ASSEMBLY 203337: CHECK VALVE ASSEMBLY, GUN BLOCK 203350: PISTON ASSEMBLY 203369: EXPANSION PLUG ASSEMBLY	21 21 23 24 25 26
PARTS IDENTIFICATION FINAL GUN ASSEMBLY 202409 202410: SCREEN SCREW ASSEMBLY 203337: CHECK VALVE ASSEMBLY, GUN BLOCK 203350: PISTON ASSEMBLY 203369: EXPANSION PLUG ASSEMBLY GU-020: MANUAL VALVE ASSEMBLY	21 23 24 25 26 27
PARTS IDENTIFICATION FINAL GUN ASSEMBLY 202409 202410: SCREEN SCREW ASSEMBLY 203337: CHECK VALVE ASSEMBLY, GUN BLOCK 203350: PISTON ASSEMBLY 203369: EXPANSION PLUG ASSEMBLY	21 23 24 25 26 27
PARTS IDENTIFICATION FINAL GUN ASSEMBLY 202409 202410: SCREEN SCREW ASSEMBLY 203337: CHECK VALVE ASSEMBLY, GUN BLOCK 203350: PISTON ASSEMBLY 203369: EXPANSION PLUG ASSEMBLY GU-020: MANUAL VALVE ASSEMBLY	21 23 24 25 26 27 28
PARTS IDENTIFICATION FINAL GUN ASSEMBLY 202409 202410: SCREEN SCREW ASSEMBLY 203337: CHECK VALVE ASSEMBLY, GUN BLOCK 203350: PISTON ASSEMBLY 203369: EXPANSION PLUG ASSEMBLY GU-020: MANUAL VALVE ASSEMBLY GU-04001: COUPLING BLOCK ASSEMBLY	21 23 24 25 26 27 28 29
PARTS IDENTIFICATION FINAL GUN ASSEMBLY 202409 202410: SCREEN SCREW ASSEMBLY 203337: CHECK VALVE ASSEMBLY, GUN BLOCK 203350: PISTON ASSEMBLY 203369: EXPANSION PLUG ASSEMBLY GU-020: MANUAL VALVE ASSEMBLY GU-04001: COUPLING BLOCK ASSEMBLY GU-844: END CAP ASSEMBLY CHAMBER KITS	21 23 24 25 26 26 27 28 29 30 30
PARTS IDENTIFICATION FINAL GUN ASSEMBLY 202409 202410: SCREEN SCREW ASSEMBLY 203337: CHECK VALVE ASSEMBLY, GUN BLOCK 203350: PISTON ASSEMBLY 203369: EXPANSION PLUG ASSEMBLY GU-020: MANUAL VALVE ASSEMBLY GU-04001: COUPLING BLOCK ASSEMBLY GU-844: END CAP ASSEMBLY REBUILD KITS & SPARE PARTS CHAMBER KITS PCT KITS	21 23 24 25 26 26 27 28 29 30 31
PARTS IDENTIFICATION FINAL GUN ASSEMBLY 202409 202410: SCREEN SCREW ASSEMBLY 203337: CHECK VALVE ASSEMBLY, GUN BLOCK 203350: PISTON ASSEMBLY 203369: EXPANSION PLUG ASSEMBLY GU-020: MANUAL VALVE ASSEMBLY GU-04001: COUPLING BLOCK ASSEMBLY GU-844: END CAP ASSEMBLY CHAMBER KITS	21 23 24 25 26 26 27 28 29 30 31
PARTS IDENTIFICATION FINAL GUN ASSEMBLY 202409 202410: SCREEN SCREW ASSEMBLY 203337: CHECK VALVE ASSEMBLY, GUN BLOCK 203350: PISTON ASSEMBLY 203369: EXPANSION PLUG ASSEMBLY GU-020: MANUAL VALVE ASSEMBLY GU-04001: COUPLING BLOCK ASSEMBLY GU-04001: COUPLING BLOCK ASSEMBLY GU-844: END CAP ASSEMBLY CHAMBER KITS PCT KITS DIAMOND PLATED CHAMBER & PCT KITS 202744: AIR CYLINDER REBUILD KIT	21 23 24 25 26 26 27 28 29 30 30 31 34 36
PARTS IDENTIFICATION FINAL GUN ASSEMBLY 202409 202410: SCREEN SCREW ASSEMBLY 203337: CHECK VALVE ASSEMBLY, GUN BLOCK 203350: PISTON ASSEMBLY 203369: EXPANSION PLUG ASSEMBLY GU-020: MANUAL VALVE ASSEMBLY GU-04001: COUPLING BLOCK ASSEMBLY GU-04001: COUPLING BLOCK ASSEMBLY GU-844: END CAP ASSEMBLY REBUILD KITS & SPARE PARTS CHAMBER KITS PCT KITS DIAMOND PLATED CHAMBER & PCT KITS	21 23 24 25 26 26 27 28 29 30 30 31 34 34 36 36



202756: SPOOL VALVE REBUILD KIT	
202888: O-RING KIT, XTREME	
202888: O-RING KIT, XTREME	
203370 203371: GUN BLOCK KIT	
202546: SIDE SEAL KIT, ENGR RESIN	
203386: FULL GUN REBUILD KIT, XTREME	
SCREEN SCREW SCREEN SIZE OPTIONS	
1/4" UNHEATED STAINLESS STEEL HOSE ASSEMBLY	
RECOMMENDED SPARE PARTS	
OPTIONAL PARTS	
FLUSH TANKS	
FLAT TIP ADAPTER KITS	44
FLAT TIP ADAPTER KIT	
FLAT TIP RETAINER ASSEMBLY	
REFERENCE GUIDE	46
XTREME GUN MODELS	
O-RING SIZE GUIDE	
LIST OF TOOLS	
GREASE GUN (TL-00002) ASSEMBLY	
MIXING CHAMBER FLOW RATES	
CHAMBER/ORIFICE COMPARISON CHART	



Before installing the Xtreme 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 Xtreme Gun. All of the information is aimed at improving user safety and avoiding possible breakdowns from the incorrect use of the Xtreme 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:

<u>Original Invoice</u>: 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.

<u>Product Maintenance</u>: 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.

<u>Non-PMC Components and Accessories:</u> 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.

<u>Other Warranty Exclusions:</u> 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.

<u>Non-Warranty Service by PMC</u>: 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.

<u>Continuing Warranty for Products Repaired or Replaced under Warranty</u>: 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.

<u>No Rights Implied</u>: 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.

<u>Exclusive Warranty</u>: 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 Xtreme Gun.



Before installing the Xtreme 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 Xtreme Gun. All of the information is aimed at improving user safety and avoiding possible breakdowns from the incorrect use of the Xtreme 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 Xtreme 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 Xtreme 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 (<u>www.polymacusa.com</u>).

The Xtreme 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 Xtreme 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 Xtreme Gun. If in doubt, consult **PMC** Technical Service.

When working with the Xtreme 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.

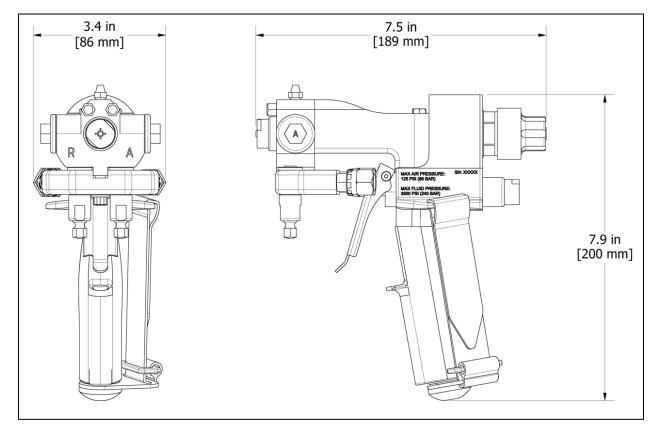
Use suitable protection when operating, maintaining or being present in the area where the equipment is functioning. This includes, but is not limited to, the use of protective goggles, gloves, shoes and safety clothing and breathing equipment.

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**



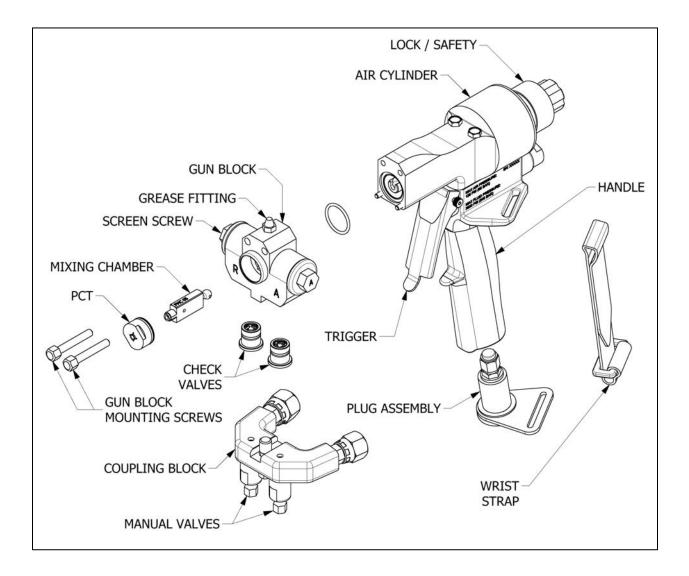
# **TECHNICAL SPECIFICATIONS**

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):	2.2 lbs (1.1 kg)
Weight (Including Coupling Block):	2.9 lbs (1.4 kg)



# **GENERAL DESCRIPTION**

For better knowledge of the Xtreme 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 Xtreme Gun or performing maintenance work, wear suitable safety protection in accordance with the recommendations and specifications provided by the product suppliers.

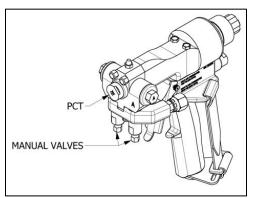
- 1. Install **Coupling Block** to the hoses.
- 2. Ensure the **Manual Valves** are **CLOSED** by turning them to the full clockwise position.

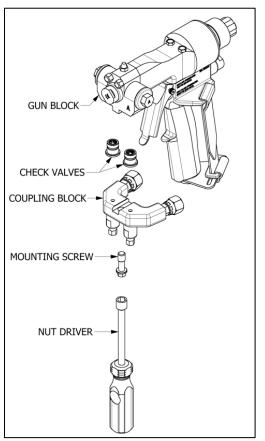
**CAUTION!** Excessive force closing or opening the Manual Valves may result in damage to the Manual Valves and/or Coupling Block.

- 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. 39). 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.



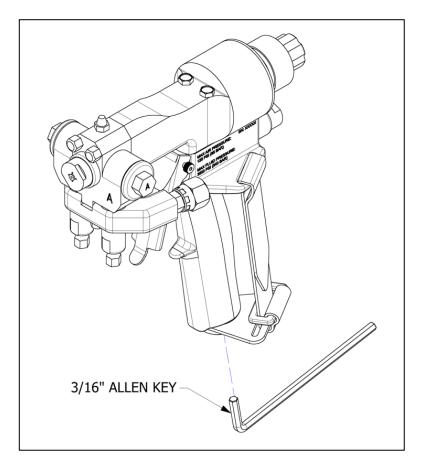






#### **EXPANSION PLUG OPERATION**

1. Use a 3/16" Allen Key (P/N 202768 in Tool Kit) to tighten the screw in the Expansion Plug Assembly in the bottom of the XTREME handle.



2. The serrated nut will compress the rubber segment within the handle and keep the Expansion Plug Assembly securely fastened.

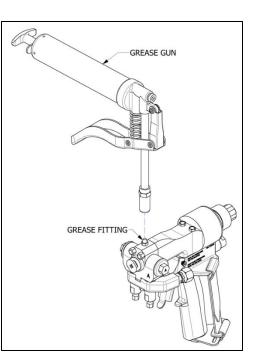


#### SHUTDOWN PROCEDURES

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. With the purge air on, use the supplied **Grease Gun** (Pg. 39) to lubricate the **Mixing Chamber** through the **Grease Fitting** until a fine mist of grease is sprayed from the gun (Pg. 49 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

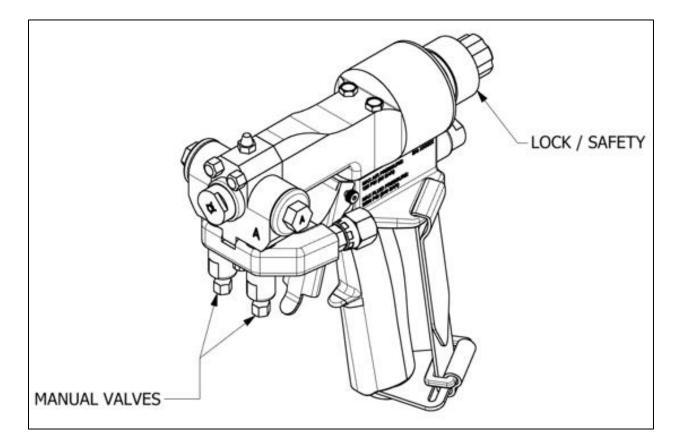
- 1. SHUT OFF air supply to gun.
- 2. Using the palm of your hand, push in on the **Gun Lock** and rotate clockwise to set it to the **LOCKED** position.
- 3. CLOSE each Manual Valve.

**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 Xtreme Gun, it is necessary to periodically perform certain maintenance operations.



WARNING! Before proceeding with any maintenance work on the Xtreme 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.

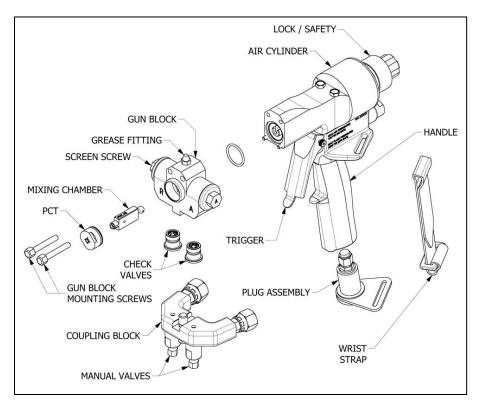
To avoid damage caused by the impact of pressurized fluids, do not open any connection or perform maintenance work on components subject to pressure until the pressure has been completely eliminated.

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.



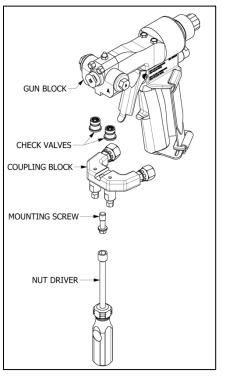


#### **GUN BLOCK AND MIXING CHAMBER REMOVAL**

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.

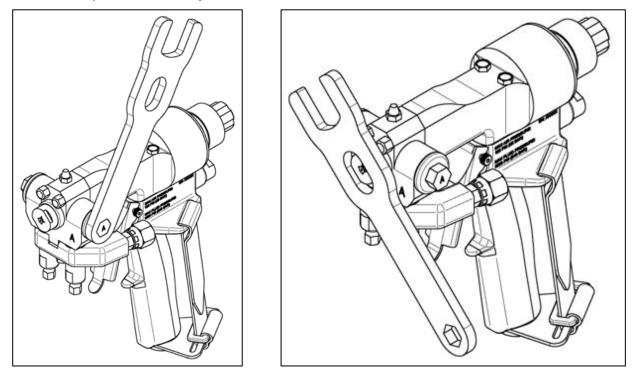
- 2. Point the gun over a waste container and pull the **Trigger** to relieve pressure.
- 3. Using the **Nut Driver** provided (Pg. 39), remove the **Mounting Screw** and disconnect the gun from the **Coupling Block**.
- 4. Pump grease through the **Gun Block** to remove any residue using the grease gun supplied (Pg. 43).
- 5. Shut off air to the gun.
- Using the Wrench provided (Pg. 39) or a ½" 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. 39) provided, remove the gun block mounting screws (Pg 6).
- 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.

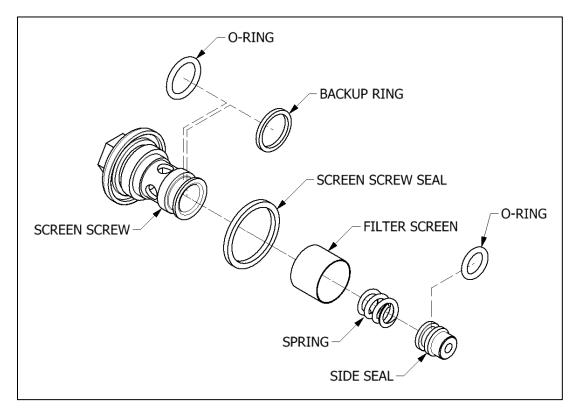
**NOTE!** A small amount of PMC grease applied to the Mixing Chamber and Side Seals upon assembly is recommended.



**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. 39), remove the Coupling Block from the Gun Block.
- 4. Flush the gun block to remove any residue. Use the recommended Flush Tank (Pg. 43)
- 5. **SHUT OFF** air supply to the gun.
- 6. Set the Gun Lock to the LOCKED position.



- 7. Use the **Wrench** provided (Pg. 39) or a <sup>1</sup>/<sub>2</sub>" 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 Orings. 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.

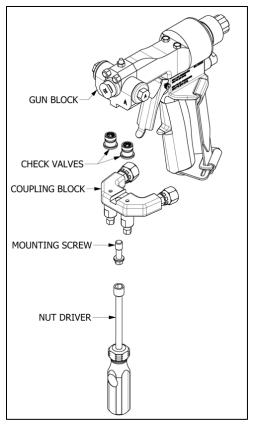
**NOTE!** When replacing O-rings, replace ALL O-rings included in the appropriate Kit.

#### AIR CYLINDER MAINTENANCE

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

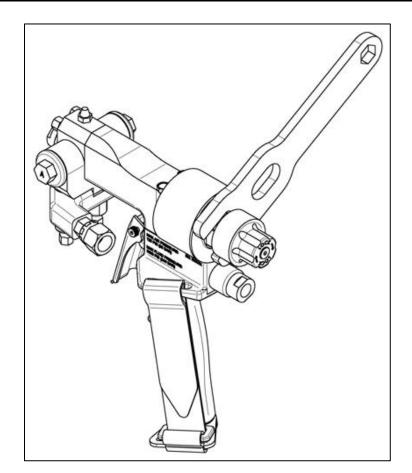
**CAUTION!** Excessive force opening or closing Manual Valves may result in damage to the Manual Valves and/or Coupling Block.

- 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. 43)
- 6. Loosen the **Screen Screws** using the **Wrench** provided (Pg. 39) or a  $\frac{1}{2}$ <sup>"</sup> wrench.
- 7. Disconnect **Coupling Block** from **Gun Block** using the **Nut Driver** provided (Pg. 39).









- 8. Using the Nut Driver provided, remove the gun block mounting screws and disconnect the Gun Block.
- 9. Using the **Wrench** provided (Pg. 39) or 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.

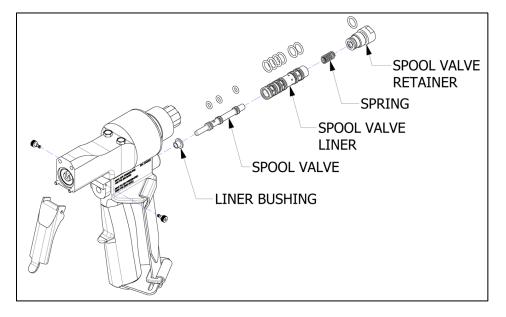
**NOTE!** When replacing O-rings, replace ALL O-rings included in the Rebuild Kit.

- 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.



#### **SPOOL VALVE 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 **Handle**.
- 5. Remove the **Trigger** from the assembly to access the front of the **Handle**.
- 6. Use the **Tool** provided (Pg. 39) and remove the **Spool Valve Retainer**.
- 7. Remove the **Spring**, **Spool Valve Liner**, and **Spool Valve** using the tool provided (Pg. 39), as shown below.
- 8. Remove and discard all **O-Rings**.
- 9. Replace the **O-rings** and **Spring** supplied in the Spool Valve Rebuild Kit 202756 (page 30).

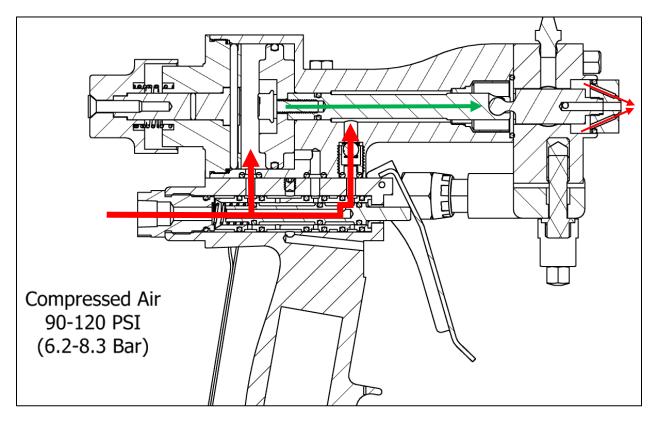
**NOTE!** When replacing O-rings, replace ALL O-rings included in 202756 Rebuild Kit.

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.





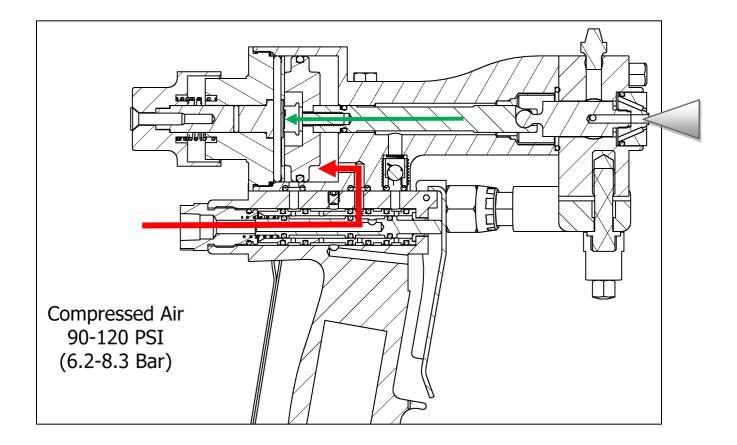
#### **TRIGGERED OFF**



- 1. Compressed **dry air** enters through the rear of the Gun Handle.
- 2. The air is directed through the spool valve and into 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.
- 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 spool 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.



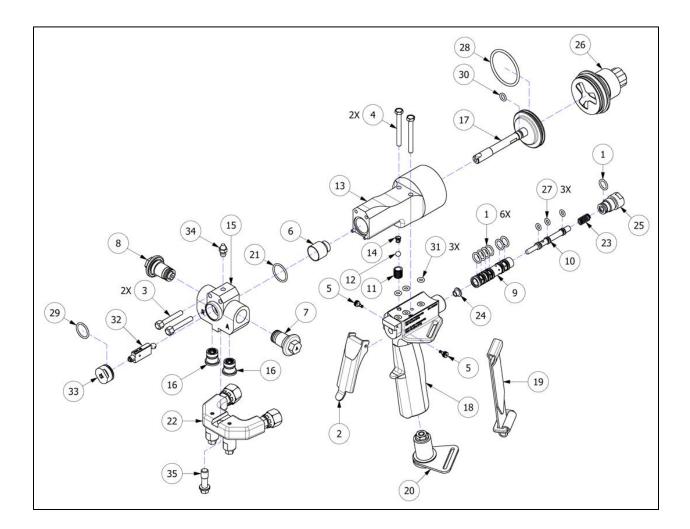
# TROUBLESHOOTING GUIDE

PROBLEM	<b>POSSIBLE CAUSE</b>	SOLUTION
PCT not flush with	Insufficient air pressure (minimum 90 psi, 6.2 bar)	Ensure 90 psi (6.2 Bar)
Gun Block when Gun	Failed Spool Valve	Replace, see page 16
is triggered	Air passages plugged	Clean, See page 19
	Lock is in "Locked" position	Unlock gun
	Air supply is not on	Turn on air supply
Material does not	Manual Valve CLOSED	OPEN, see page 7
spray when Gun is triggered	Mixing Chamber inlet orifices plugged	Clean, see page 12
linggorod	Side Seal orifices plugged	Clean, see page 14
	Check Valve plugged	Replace
	Failed Spool Valve	Replace, see page 17
Mixing Chamber	Insufficient air pressure (minimum 90 psi, 6.2 Bar)	Ensure 90 psi (6.2 Bar) of air pressure
moves slowly	Piston assembly requires service	Rebuild, see page 15
	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 12, 14
	Incorrect chemical temperature	See Proportioner Manual
Pattern deformation	Mixing Chamber nozzle and/or PCT dirty	Inspect and clean
	Mixing Chamber inlet orifices plugged	Clean
Material annau	Side Seal orifices plugged	Clean, see page 14
Material spray pressure imbalance	Dirty screens	Replace
	Material temperatures not as recommended by material supplier	Adjust, see Proportioner Operating Manual
	Side Seal damaged	Replace, see page 14
Iso and/or Resin in	Mixing Chamber damaged	Replace, see page 12
Gun Air Passages	Side Seal/ Screen Screw O-rings damaged	Replace, see page 14
Material mist from	Side Seal damaged	Replace, see page 14
Mixing Chamber or	Mixing Chamber damaged	Replace, see page 12
PCT	Side Seal/Screen Screw O-rings damaged	Replace, see page 14
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 12
Air leakage from	Air Cylinder O-rings damaged	Replace, see page 29
Handle	Spool Valve Damaged	Replace, see page 16



# 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.

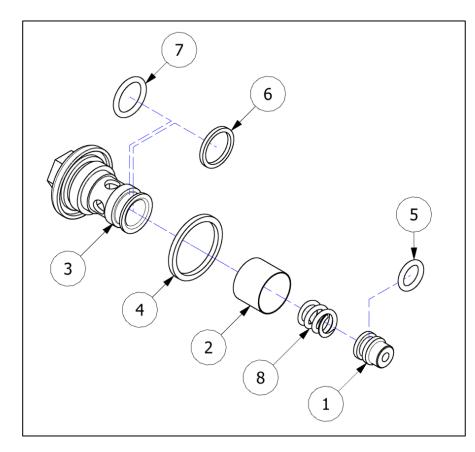


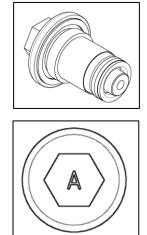


		FINAL GUN ASSEMBLY	
ITEM	PART NUMBER	DESCRIPTION	QTY
1	200513	O-RING, VITON, 9.25X1.78mm	7
2	200673	TRIGGER, AP-3	1
3	201108	SCREW,HEX CAP,10-32 CUSTOM	2
4	201109	HHCS, #10-24 X 1.750, ZP STL	2
5	201110	SHOULDER BOLT, 1/8D, 1/8L, SS	2
6	201562	BUSHING, AIR CYLINDER	1
7	202409	SCREEN SCREW ASSY, A, AP-2/3	1
8	202410	SCREEN SCREW ASSY, R, AP-2/3	1
9	202568	SPOOL VALVE LINER, XTREME	1
10	202569	SPOOL VALVE, XTREME	1
11	202705	SEAT, CHECK VALVE, XTREME	1
12	202714	BALL, 7/32", STL	1
13	202716	CYLINDER, PINNED, XTREME	1
14	202775	SPRING, .250" X .187" X .220",	1
45	203290	GUN BLOCK, CV, XTREME, AL	1
15	203291	GUN BLOCK, CV, XTREME, STL	1
16	203337	CV ASSY, GUN BLOCK, XTREME	2
17	203350	ASSEMBLY, PISTON, XTREME	1
18	203351	HANDLE, ERGO, XTREME	1
19	203367	WRIST STRAP, 9", XTREME	1
20	203369	ASSEMBLY, PLUG, XTREME	1
21	203373	O-RING, -018, AFLAS	1
22	GU-04001	COUPLING BLOCK ASSEMBLY	1
23	GU-824	SPOOL VALVE SPRING, AP-2	1
24	GU-825-2	LINER BUSHING, AP-2	1
25	GU-833	HOSE ADAPTER, AP-2	1
26	GU-844	END CAP ASSEMBLY, AP-2/3	1
27	OR-00002A	O-RING, VITON, -008	3
28	OR-00026A	O-RING, VITON, -129	1
29	OR-00042A	O-RING, -016, AFLAS, BLK	1
30	OR-00043B	O-RING, -010, AFLAS, 80D	1
31	OR-804	O-RING, BUNA, 2mm X 4mm	3
32	RM-814-DP-SIZE	MIXING CHAMBER	1
33	RM-815-SIZE	PATTERN CONROL TIP (PCT)	1
34	TN-04186	GREASE FITTING, 1/4-28	1
35	TN-04193	COUPLING BLOCK MOUNTING SCREW	1



#### 202409|202410: SCREEN SCREW ASSEMBLY





GU-819-A



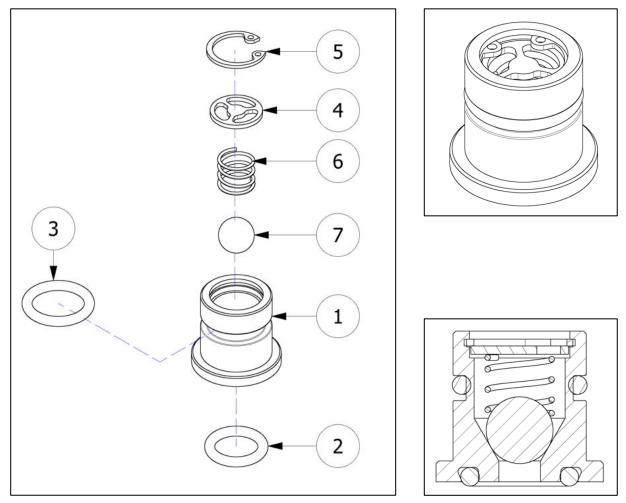
# 202409: SCREEN SCREW ASSEMBLY, A 202410: SCREEN SCREW ASSEMBLY, R

202410. SCREEN SCREW ASSEMBLE, R			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	202454	SIDE SEAL, .125, ENGR RESIN	1
	GU-818-40	FILTER SCREEN; 40 MESH	1
2	GU-818-60	FILTER SCREEN; 60 MESH	1
	GU-818-80*	FILTER SCREEN; 80 MESH	1
3	GU-819-A	"A" SCREEN SCREW	1
5	GU-819-R	"R" SCREEN SCREW	1
4	GU-04007	SCREEN SCREW SEAL	1
5	OR-00043B	O-RING, AFLAS, -010	1
6	OR-800	#013 BACK UP RING	1
7	OR-801A	O-RING, AFLAS, -013	1
8	SP-04005	SPRING; SIDE SEAL	1

\*Factory standard. Additional screen sizes available for purchase separately.



#### **203337: CHECK VALVE ASSEMBLY, GUN BLOCK**

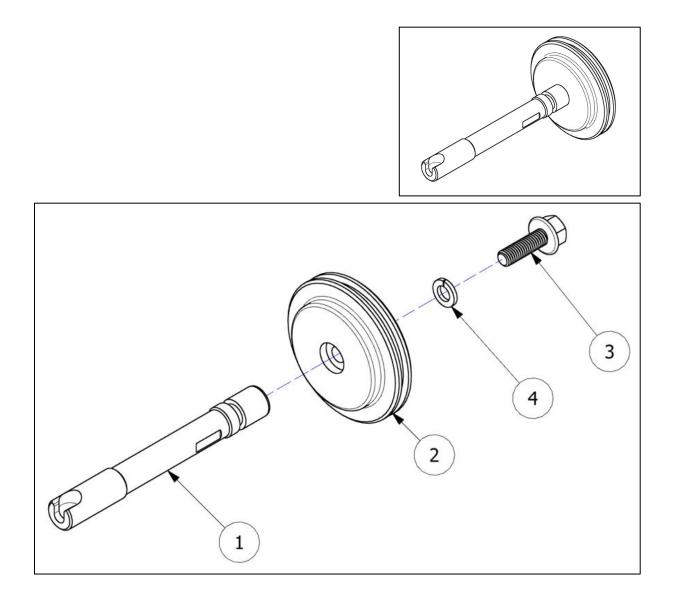


Use snap ring pliers (203374) included in tool kit for maintenance of Check Valve assemblies.

	203337: (	CV ASSY, GUN BLOCK, XTREME	
ITEM	PART NUMBER	DESCRIPTION	QTY
1	203292	CHECK VALVE SEAT, XTREME	1
2	203293	O-RING, -011, AFLAS	1
3	203294	O-RING, -012, AFLAS	1
4	203328	SP RTNR, CV, XTREME	1
5	203330	RETAINING RING, INTERNAL, 3/8 ID	1
6	GU-852	CHECK VALVE SPRING, AP-2/3	1
7	GU-853	1/4" CHECK VALVE BALL, AP-2/3	1



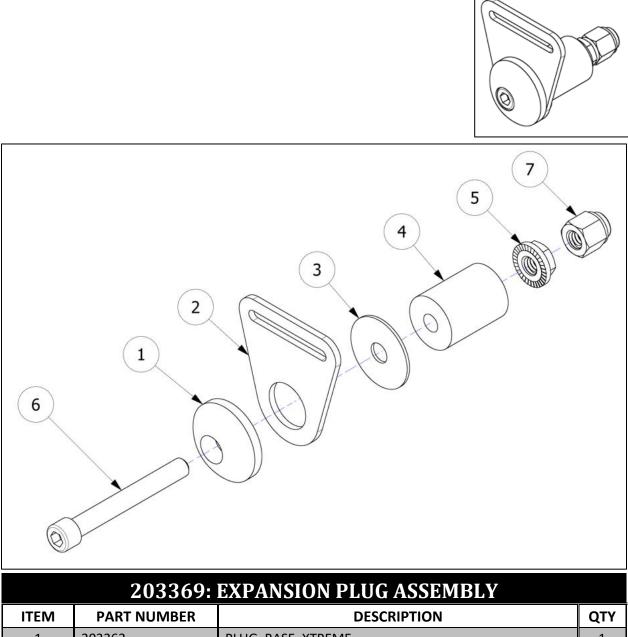
# 203350: PISTON ASSEMBLY



	203350:	PISTON ASSEMBLY, XTREME	
ITEM	PART NUMBER	DESCRIPTION	QTY
1	203346	PISTON, SHAFT, XTREME	1
2	203347	PISTON, DISK, XTREME	1
3	203348	HHCS, FLG, #10-32 x 0.625", GRD 5 ZP	1
4	203349	WASHER, LOCK, #10, ZP	1



#### **203369: EXPANSION PLUG ASSEMBLY**



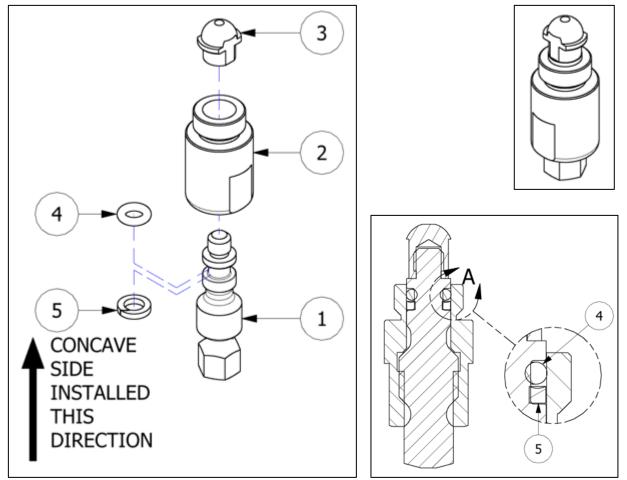
ITEM	PART NUMBER	DESCRIPTION	QTY
1	203362	PLUG, BASE, XTREME	1
2	203363	MTG TAB, STRAP, XTREME	1
3	203364	WASHER, FLAT, OS, 1/4, ZP	1
4	203365	RUBBER, .250 ID x .750 OD, RED	1
5	203366	NUT, SERR FLG, 1/4-20, STL	1
6	203380	SHCS, 1/4-20 x 2.000, 18-8 SS	1
7	203381	NUT, LOCK,CAP, 1/4-20, ZP STL	1





#### **GU-020: MANUAL VALVE ASSEMBLY**

\*See page XX for Manual Valve Software Kit

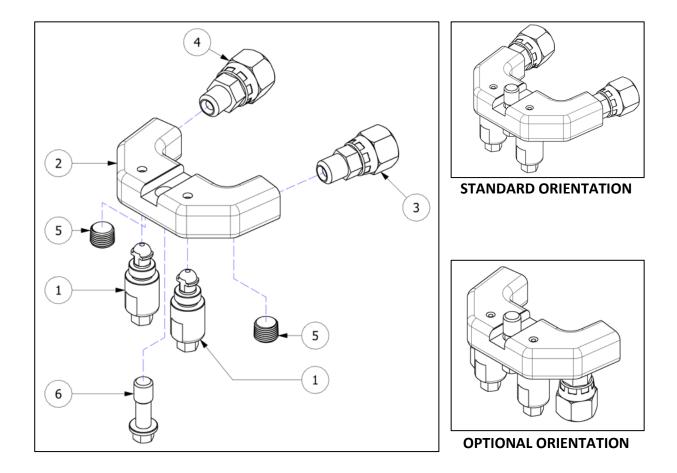


<u>Note</u>: Orientation of the Back-Up Ring is critical. The concave side must be aligned with the O-Ring as shown above when it is installed.

	GU-020:	MANUAL VALVE ASSEMBLY	
ITEM	PART NUMBER	DESCRIPTION	QTY
1	GU-021	MANUAL VALVE STEM	1
2	GU-022	MANUAL VALVE HOUSING	1
3	GU-023	MANUAL VALVE SEAT	1
4	OR-015	#007 AFLAS O-RING	1
5	OR-016	007 VITON CURVED BACKUP RING	1



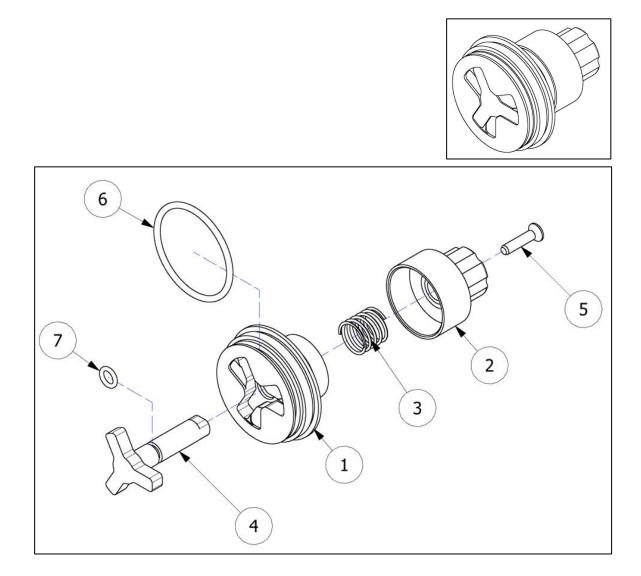
# **GU-04001: COUPLING BLOCK ASSEMBLY**



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



# **GU-844: END CAP ASSEMBLY**



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





# **REBUILD KITS & SPARE PARTS**

CHAMBER KITS						
KIT NUMBER	PART NUMBER	QTY	DESCRIPTION (INCH)	FOR USE WITH	ILLUSTRATION	
	200476	1	#63 DRILL (.0370)	MIXING NOZZLE		
GU-814-DP-000	GU-03031	1	#70 DRILL (.0280)	MIXING CHAMBER PORT		
	RM-814-DP-000	1	CHAMBER #000	-	DIAMOND PLATED	
	200477	1	1.25mm DRILL (.0492)	MIXING NOZZLE	<i></i>	
GU-814-DP-00	GU-03027	1	#69 DRILL (.0292)	MIXING CHAMBER PORT		
	RM-814-DP-00	1	CHAMBER #00	-	DIAMOND PLATED	
	200478	1	1.35mm DRILL (.0531)	MIXING NOZZLE		
GU-814-DP-00X	GU-03032	1	#61 DRILL (.0390)	MIXING CHAMBER PORT		
	RM-814-DP-00X	1	CHAMBER #00X	-	DIAMOND PLATED	
	200479	1	1.45mm DRILL (.0571)	MIXING NOZZLE		
GU-814-DP-01	GU-03021	1	#59 DRILL (.0410)	MIXING CHAMBER PORT		
	RM-814-DP-01	1	CHAMBER #01	-	DIAMOND PLATED	
	GU-03053	1	#52 DRILL (.0635)	MIXING NOZZLE		
GU-814-DP-01X	GU-03052	1	#57 DRILL (.0430)	MIXING CHAMBER PORT		
	RM-814-DP-01X	1	CHAMBER #01X	-	DIAMOND PLATED	
GU-814-DP-02	GU-03024	1	#51 DRILL (.0676)	MIXING NOZZLE		
	GU-03023	1	#56 DRILL (.0465)	MIXING CHAMBER PORT	<i>e2221</i>	
	RM-814-DP-02	1	CHAMBER #02	-	DIAMOND PLATED	
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	



CHAMBER KITS (CONTINUED)						
KIT NUMBER	PART NUMBER	QTY	DESCRIPTION (INCH)	FOR USE WITH	ILLUSTRATION	
	GU-03028	1	#44 DRILL (.0860)	MIXING NOZZLE		
GU-814-DP-03	GU-03035	1	#54 DRILL (.055)	MIXING CHAMBER PORT		
	RM-814-DP-03	1	CHAMBER #03	-	DIAMOND PLATED	
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	
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-03027	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, AFLAS, -016	-		
	RM-815-000	1	PATTERN CONTROL TIP 000	-		
GU-815-00	GU-03027	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, AFLAS, -016	-		
	RM-815-00	1	PATTERN CONTROL TIP 00	-	a la	



PCT KITS (CONTINUED)						
KIT NUMBER	PART NUMBER	QTY	DESCRIPTION	FOR USE WITH	ILLUSTRATION	
GU-815-00X	GU-03027	1	#65 DRILL (.0350)	PCT PURGE PORT		
	200478	1	1.35mm DRILL (.0531)	PCT PURGE AND NOZZLE PORT		
	OR-00042A	2	O-RING, AFLAS, -016	-		
	RM-815-00X	1	PATTERN CONTROL TIP 00.X	-	and the second s	
	GU-03027	1	#65 DRILL (.0350)	PCT PURGE PORT		
	GU-03035	1	#54 DRILL (.055)	PCT PURGE PORT		
GU-815-01	200479	1	1.45mm DRILL (.0571)	NOZZLE PORT		
	OR-00042A	2	O-RING, AFLAS, -016	-		
	RM-815-01	1	PATTERN CONTROL TIP 01	-	( si	
	GU-03027	1	#65 DRILL (.0350)	PCT PURGE PORT		
	GU-03035	1	#54 DRILL (.055)	PCT PURGE PORT		
GU-815-01X	GU-03053	1	#52 DRILL (.0635)	PCT NOZZLE PORT		
	OR-00042A	2	O-RING, AFLAS, -016	-		
	RM-815-01X	1	PATTERN CONTROL TIP 01X	-		
GU-815-02	GU-03027	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, AFLAS, -016	-		
	RM-815-02	1	PATTERN CONTROL TIP 02	-	( s	



PCT KITS (CONTINUED)							
KIT NUMBER	PART NUMBER	QTY	DESCRIPTION	FOR USE WITH	ILLUSTRATION		
GU-815-02X	GU-03027	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, AFLAS, -016	-			
	RM-815-02X	1	PATTERN CONTROL TIP 02X	-			
	GU-03027	1	#65 DRILL (.0350)	PCT PURGE PORT			
GU-815-03	GU-03035	1	#54 DRILL (.055)	PCT PURGE PORT			
	GU-03028	1	#44 DRILL (.0860)	PCT NOZZLE PORT			
	OR-00042A	2	O-RING, AFLAS, - 016	-			
	RM-815-03	1	PATTERN CONTROL TIP 03	-	and the second s		
	GU-03027	1	#65 DRILL (.0350)	PCT PURGE PORT			
	GU-03035	1	#54 DRILL (.055)	PCT PURGE PORT			
GU-815-04	200481	1	2.4mm DRILL (.0945)	PCT NOZZLE PORT			
	OR-00042A	2	O-RING, AFLAS, - 016	-			
	RM-815-04	1	PATTERN CONTROL TIP 04	-	(a)		
200919	GU-03027	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, AFLAS, - 016	-			
	200918	1	PATTERN CONTROL TIP 05	-	(a)		





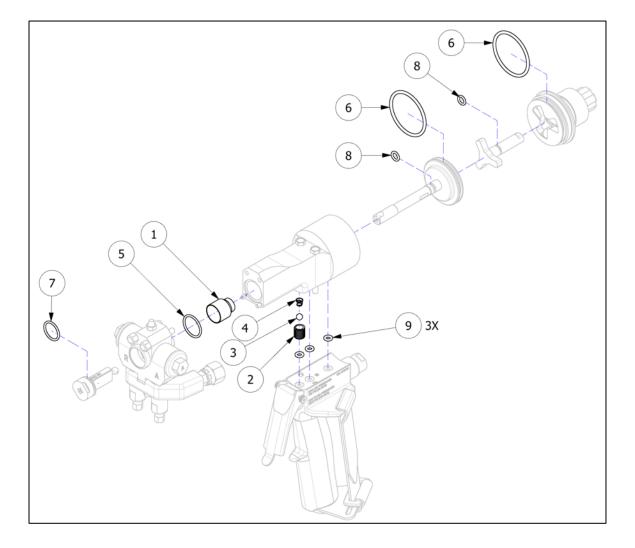
	DIAMOND PL	ATED CHAMBER & PCT KITS	
KIT NUMBER	PART NUMBER	DESCRIPTION	QTY
	GU-814-DP-000	CHAMBER 000 W/ DRILLS	1
KT-814-DP-000	GU-815-000	PCT 000 RND W/ DRILLS	1
	OR-00042A	O-RING, AFLAS, -016	1
	GU-814-DP-00	CHAMBER 00 W/ DRILLS	1
KT-814-DP-00	GU-815-00	PCT 00 RND W/ DRILLS	1
	OR-00042A	O-RING, AFLAS, -016	1
	GU-814-DP-00X	CHAMBER 00X W/ DRILLS	1
KT-814-DP-00X	GU-815-00X	PCT 00X W/ DRILLS	1
	OR-00042A	O-RING, AFLAS, -016	1
	GU-814-DP-01	CHAMBER 01 W/ DRILLS	1
KT-814-DP-01	GU-815-01	PCT 01 RND W/ DRILLS	1
	OR-00042A	O-RING, AFLAS, -016	1
	GU-814-DP-01X	CHAMBER 01X W/ DRILLS	1
KT-814-DP-01X	GU-815-01X	PCT 01X RND W/ DRILLS	1
	OR-00042A	O-RING, AFLAS, -016	1
	GU-814-DP-02	CHAMBER 02 W/ DRILLS	1
KT-814-DP-02	GU-815-02	PCT 02 RND W/ DRILLS	1
	OR-00042A	O-RING, AFLAS, -016	1
	GU-814-DP-02X	CHAMBER 02X W/ DRILLS	1
KT-814-DP-02X	GU-815-02X	PCT 02X RND W/ DRILLS	1
	OR-00042A	O-RING, AFLAS, -016	1
	GU-814-DP-03	CHAMBER 03 W/ DRILLS	1
KT-814-DP-03	GU-815-03	PCT 03 RND W/ DRILLS	1
	OR-00042A	O-RING, AFLAS, -016	1
	GU-814-DP-04	CHAMBER 04 W/ DRILLS	1
KT-814-DP-04	GU-815-04	PCT 04 RND W/ DRILLS	1
	OR-00042A	O-RING, AFLAS, -016	1
	200919	PCT 05 W/ DRILLS	1
KT-814-DP-05	GU-814-DP-05	CHAMBER, 05 W/ DRILLS, DP	1
	OR-00042A	O-RING, -016. AFLAS, BLK	1



	DRILL BIT KITS										
KIT PART NUMBER 200593   200596 200593							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	-



## **202744: AIR CYLINDER REBUILD KIT**

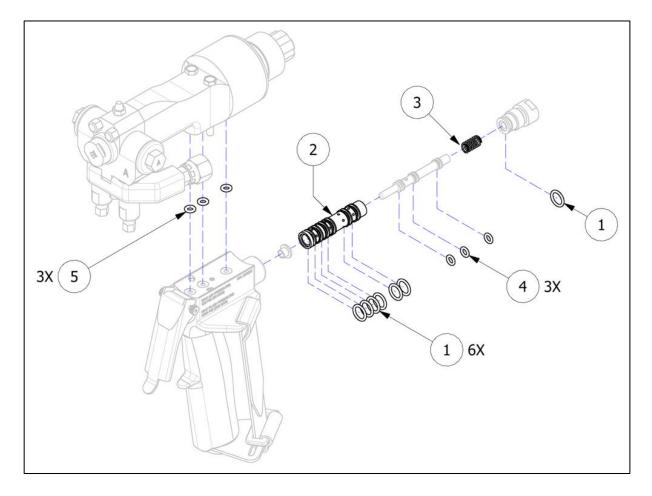


	202744: AIR CYLINDER REBUILD KIT			
ITEM	PART NUMBER	DESCRIPTION	QTY	
1	201562	AIR CYLINDER BUSHING	1	
2	202705	SEAT, CHECK VALVE	1	
3	202714	BALL, CHECK VALVE	1	
4	202775	SPRING, CHECK VALVE	1	
5	203373	O-RING, -018, AFLAS	1	
6	OR-00026A	O-RING, VITON, -129	2	
7	OR-00042A	O-RING, AFLAS, -016	1	
8	OR-00043B	O-RING, AFLAS, -010	2	
9	OR-804	O-RING, BUNA, 2mm X 4mm	3	





### **202756: SPOOL VALVE REBUILD KIT**

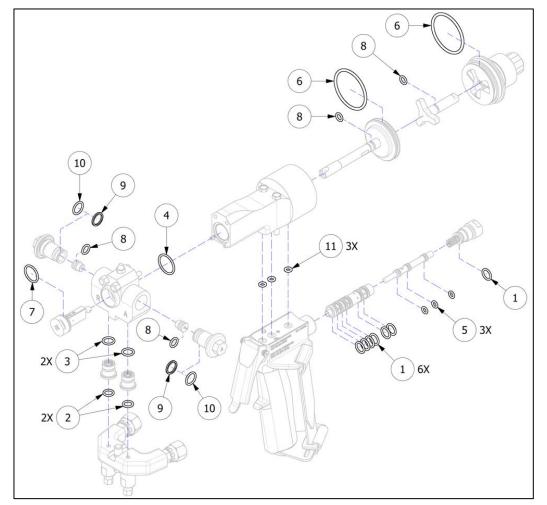


	202756: SPOOL VALVE REBUILD KIT				
ITEM	PART NUMBER	DESCRIPTION	QTY		
1	200513	O-RING, VITON, 9.25mm X 1.78mm	7		
2	202568	SPOOL VALVE LINER, XTREME	1		
3	GU-824	SPOOL VALVE SPRING, XTREME	1		
4	OR-00002A	O-RING, AFLAS, -008	3		
5	OR-804	O-RING, BUNA, 2mm X 4mm	3		





# 202888: O-RING KIT, XTREME

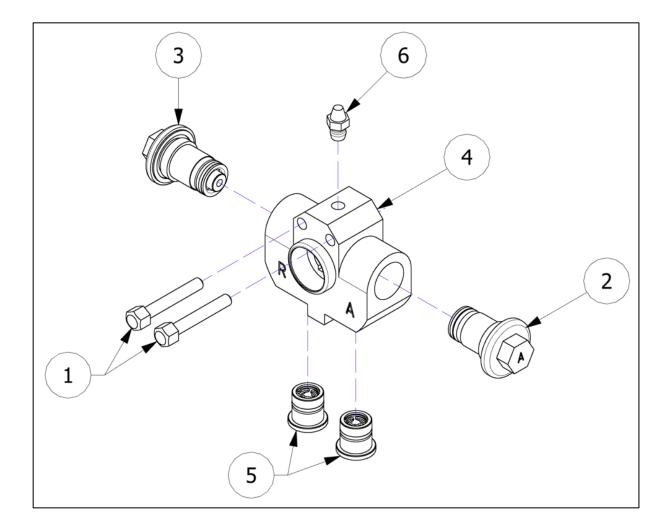


	202888: O-RING KIT, XTREME				
ITEM	PART NUMBER	DESCRIPTION	QTY		
1	200513	O-RING, VITON, 9.25mm X 1.78mm	7		
2	203293	O-RING, -011, AFLAS	2		
3	203294	O-RING, -012, AFLAS	2		
4	203373	O-RING, -018, AFLAS	1		
5	OR-00002A	O-RING, VITON, -008	3		
6	OR-00026A	O-RING, VITON, -129	2		
7	OR-00042A	O-RING, AFLAS, -016	1		
8	OR-00043B	O-RING, AFLAS, -010	4		
9	OR-800	#013 BACK UP RING	2		
10	OR-801A	O-RING, AFLAS, -013	2		
11	OR-804	O-RING, BUNA, 2mm X 4mm	3		





## 203370|203371: GUN BLOCK KIT



203370: KIT, GUN BLOCK, CV, ALUMINUM 203371: KIT, GUN BLOCK, CV, STEEL				
ITEM	PART NUMBER	DESCRIPTION	QTY	
1	201108	SCREW, HEX CAP, 10-32 CUSTOM	2	
2	202409	SCREEN SCREW ASSY, A, AP-2/3	1	
3	202410	SCREEN SCREW ASSY, R, AP-2/3	1	
4	203290	GUN BLOCK, CV, XTREME, AL	1	
4	203291	GUN BLOCK, CV, XTREME, STL	1	
5	203337	CV ASSY, GUN BLOCK, XTREME	2	
6	TN-04186	GREASE FITTING, 1/4-28	1	



<b>202546: SIDE SEAL KIT, ENGR RESIN</b>				
ITEM	PART NUMBER	DESCRIPTION	QTY	
1	202454	SIDE SEAL, .125, RESIN	2	
2	OR-00043B	O-RING, AFLAS, -010, 80D	2	

203384: SCREEN SCREW REBUILD KIT				
ITEM	PART NUMBER	DESCRIPTION	QTY	
1	202454	SIDE SEAL, .125, ENGR RESIN	2	
2	GU-818-80	FILTER SCREEN; 80 MESH	2	
3	GU-04007	SCREEN SCREW SEAL	2	
4	OR-00043B	O-RING, AFLAS, -010	2	
5	OR-800	#013 BACK UP RING	2	
6	OR-801A	O-RING, AFLAS, -013	2	
7	SP-04005	SPRING; SIDE SEAL	2	

	203385: CHECK	VALVE REBUILD KIT, XTREME	
ITEM	PART NUMBER	DESCRIPTION	QTY
1	203293	O-RING, -011, AFLAS	2
2	203294	O-RING, -012, AFLAS	2
3	203328	SP RTNR, CV, XTREME	2
4	203330	RETAINING RING, INTERNAL, 3/8 ID	3
5	GU-852	CHECK VALVE SPRING, AP-2/3	2
6	GU-853	1/4" CHECK VALVE BALL, AP-2/3	2



#### Xtreme REBUILD KITS & SPARE PARTS

	203386: FULI	GUN REBUILD KIT, XTREME	
ITEM	PART NUMBER	DESCRIPTION	QTY
1	201562	BUSHING, AIR CYLINDER, AP-3	1
2	202568	SPOOL VALVE LINER, XTREME	1
3	202705	SEAT, CHECK VALVE, XTREME	1
4	202714	BALL, 7/32" STEEL	1
5	202775	SPRING, CHECK VALVE, XTREME	1
6	202888	O-RING KIT, XTREME	1
7	203367	WRIST STRAP, 9", XTREME	1
8	203384	SCREEN SCREW REBUILD KIT	1
9	203385	CHECK VALVE REBUILD KIT, XTREME	1
10	GP-00101	PIN VICE	1
11	GP-LUBEGREASE	LUBRIPLATE GREASE	1
12	GU-020	MANUAL VALVE ASSY.	1
13	GU-824	SPOOL VALVE SPRING, AP-2	1
14	KT-020	MANUAL VALVE SOFTWARE KIT	1
15	TN-04186	GREASE FITTING, ¼-28	1

<b>KT-020: MANUAL VALVE SOFTWARE KIT</b>				
ITEM	PART NUMBER	DESCRIPTION	QTY	
1	GU-LOCTITE	LOCTITE #242	1	
2	OR-015	O-RING, AFLAS, -007	4	
3	OR-016	#007 VITON CURVED BACKUP RING	4	

SCREI	EN SCREW SCREEN SIZE OPTIONS	
PART NUMBER	DESCRIPTION	QTY
GU-818-40	FILTER SCREEN, 40 MESH	1
GU-818-60	FILTER SCREEN, 60 MESH	1
GU-818-80	FILTER SCREEN, 80 MESH (STANDARD)	1
KT-818-40	FILTER SCREEN, 40 MESH (PKG 10)	1
KT-818-60	FILTER SCREEN, 60 MESH (PKG 10)	1
KT-818-80	FILTER SCREEN, 80 MESH (PKG 10)	1



## 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	PAGE		
202546	SIDE SEAL KIT, ENGR RESIN	1	40	
202744	AIR CYLINDER REBUILD KIT	1	36	
202888	O-RING KIT, XTREME	1	38	
203337	CHECK VALVE ASSEMBLY, GUN BLOCK	2	24	
203367	WRIST STRAP, 9", XTREME	1	21	
GU-020	MANUAL VALVE ASSEMBLY	2	27	
GU-04007	SCREEN SCREW SEAL		23	
GU-818-40	FILTER SCREEN 40 MESH		41	
GU-818-60	FILTER SCREEN 60 MESH		41	
GU-818-80	FILTER SCREEN 80 MESH (STANDARD)		41	
OR-00042A	O-RING, AFLAS, -016	2	38	
OR-00043B	O-RING, AFLAS, -010	8	38	
OR-800	#013 BACK UP RING	8	38	
OR-801A	O-RING, AFLAS, -013	8	38	
SP-04005	SPRING; SIDE SEAL	2	23	
TL-04003	GREASE TUBE	1	48	

<b>OPTIONAL PARTS</b>			
PART NUMBER	DESCRIPTION	QTY	
202454	SIDE SEAL, .125, RESIN	1	
GU-815-50	BLASTER TIP 3.5	1	
GU-815-50-509	BLASTER TIP .059	1	
GU-815-51	POUR TIP	1	
GU-815-52	PCT FLAT TIP RETAINER ASSEMBLY	1	
GU-815-52-1	PCT FLAT TIP BODY	1	
GU-815-52-2	PCT FLAT TIP GASKET	1	
GU-815-52-3	PCT FLAT TIP RETAINER	1	
GU-815-53	POUR NOZZLE	1	
OR-00042A	O-RING, AFLAS, -016	1	



#### **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		

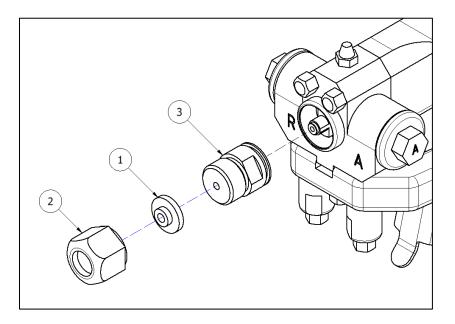


### FLAT TIP ADAPTER KITS

## FLAT TIP ADAPTER KIT

# (201152)

**NOTE:** This kit is intended for use with 201099 (PCD, TP-100, PX-7) for foam applications.



PCT FLAT TIP RETAINER ASSEMBLY (201152)			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	201150	FLAT TIP ADAPTER GASKET	1
2	201151	FLAT TIP RETAINER	1
3	GU-815-52-1	FLAT TIP ADAPTER BODY	1

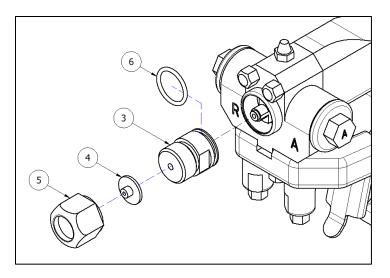
\*Tips are not included with the Xtreme guns and will need to be purchased separately. See table below for compatible tip options.

201152 PCT FLAT TIPS			
PART NUMBER	PART NUMBER DESCRIPTION		
200727	PCD, 210, PX-7	1	
201099	PCD, TP-100, PX-7	1	



#### **FLAT TIP RETAINER ASSEMBLY**

# (GU-815-52)



	PCT FLAT TIP RETAINER ASSEMBLY (GU-815-52)			
ITEM	PART NUMBER	DESCRIPTION	QTY	
1	200712	DRILL, 3.10mm, (.1220"/3.10mm)	1	
2	GU-03054	DRILL, #50, (.0700"/1.78mm)	1	
3	GU-815-52-1	FLAT TIP ADAPTER BODY	1	
4	GU-815-52-2	PCT FLAT TIP GASKET	1	
5	GU-815-52-3	PCT FLAT TIP RETAINER	1	
6	OR-00042A	O-RING, AFLAS, -016	2	

\*Tips are not included with the Xtreme guns and will need to be purchased separately. See table below for compatible tip options.

<b>GU-815-52 PCT FLAT TIPS</b>			
PART NUMBER	DESCRIPTION	QTY	
GU-815-52-325	Flat Tip 8" x .025 Orifice	1	
GU-815-52-335	Flat Tip 8" x .035 Orifice	1	
GU-815-52-421	Flat Tip 8" x .021 Orifice	1	
GU-815-52-525	Flat Tip 12" x .025 Orifice	1	
GU-815-52-535	Flat Tip 12" x .035 Orifice	1	
GU-815-52-621	Flat Tip 12" x .021 Orifice	1	
GU-815-52-723	Flat Tip 14" x .023 Orifice	1	
GU-815-52-925	Flat Tip 18" x .025 Orifice	1	



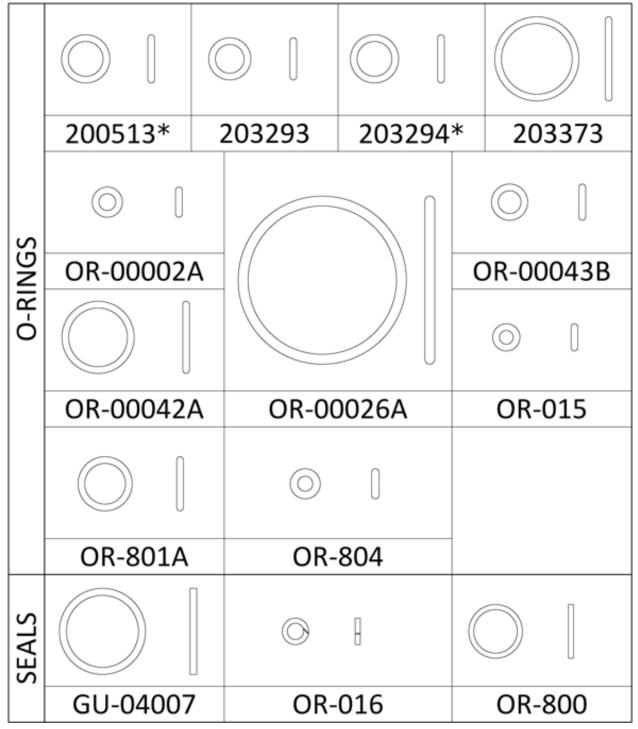
# **REFERENCE GUIDE**

<b>XTREME GUN MODELS</b>					
PART NUMBER	DESCRIPTION	CHAMBER SIZE	PCT SIZE	GUN BLOCK MATERIAL	
202717	XTREME W/00 CHAMBER/FLAT PCT	00	VARIES	ALUMINUM	
202718	XTREME W/00 CHAMBER/PCT PKG	00	00	ALUMINUM	
202719	XTREME W/00 CHAMBER/PCT PKG, STEEL	00	00	STEEL	
202720	XTREME W/000 CHAMBER/PCT PKG	000	000	ALUMINUM	
202721	XTREME W/00X CHAMBER/PCT PKG, STEEL	00X	00X	STEEL	
202722	XTREME W/00X CHAMBER/PCT PKG	00X	00X	ALUMINUM	
202723	XTREME W/01 CHAMBER/FLAT PCT	01	VARIES	ALUMINUM	
202724	XTREME W/01 CHAMBER/PCT PKG	01	01	ALUMINUM	
202725	XTREME W/01 CHAMBER/PCT PKG, STEEL	01	01	STEEL	
202726	XTREME W/01X CHAMBER/PCT PKG, STEEL	01X	01X	ALUMINUM	
202727	XTREME W/01X CHAMBER/PCT PKG	01X	01X	STEEL	
202728	XTREME W/02 CHAMBER/PCT PKG	02	02	ALUMINUM	
202729	XTREME W/02 CHAMBER/PCT PKG, STEEL	02	02	STEEL	
202730	XTREME W/02X CHAMBER/PCT PKG	02X	02X	ALUMINUM	
202731	XTREME W/03 CHAMBER/PCT PKG	03	03	ALUMINUM	
202732	XTREME W/03 CHAMBER/PCT PKG, STEEL	03	03	STEEL	
202733	XTREME W/04 CHAMBER/PCT PKG	04	04	ALUMINUM	
202734	XTREME W/05 CHAMBER/PCT PKG	05	05	ALUMINUM	
202809	XTREME W/00 CHAMBER/01 PCT PKG	00	00	ALUMINUM	
203313	XTREME W/02X CHAMBER/PCT PKG, STEEL	02X	02X	STEEL	

#### Xtreme REFERENCE GUIDE



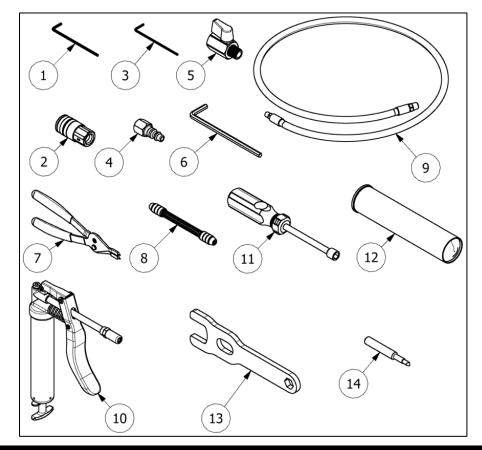
#### **O-RING SIZE GUIDE**



\*O-Rings 200513 and 203294 are the same size but different materials



## LIST OF TOOLS



LIST OF TOOLS			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	200581	3/32" ALLEN WRENCH	1
2	200585	QUICK CONNECT, FEMALE	1
3	200609	5/64" ALLEN WRENCH	1
4	202340	QD, PLUG,1/4 IND X 1/4 FNPT, STL	1
5	202767	MINI BALL VALVE	1
6	202768	3/16" ALLEN WRENCH	1
7	203374	TOOL, SNAP RING PLIERS, .038"	1
8	GP-00101	DOUBLE ENDED PIN VISE	1
9	GU-04019	AIR HOSE	1
10	TL-00002	GREASE GUN	1
11	TL-04001	5/16 SPINTITE, NUT DRIVER	1
12	TL-04003	GREASE TUBE	1
13	TL-09	OPEN END WRENCH	1
14	TL-10	CHECK VALVE REMOVAL TOOL	1



#### **GREASE GUN (TL-00002) ASSEMBLY**

 $\sim$ 

- 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).
- 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).
- 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.

2a	2c
2b	
2d	
2e	



<b>MIXING CHAMBER FLOW RATES</b>					
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.

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