DuraMAX Gun Manual
DMX-3000

MagnumVenusPlastech

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Terms & Conditions of Sale:

- Customs duties, import and export licenses and certificates, if required, and all local taxes are excluded from this offer. If US state and local taxes are applicable and not included in equipment invoice, such amount may be invoiced later.

- Delivery dates or shipping schedules are approximate and based upon the most recent information available at the time of order. Dates may be adjusted upon receipt of subsequent information or modification of order. Seller will ship prior to the delivery date if possible, but not without Buyer's consent on Advanced Equipment sales.

- All contract dates and timelines begin upon receipt at MVP of customer purchase order, signed Terms and Conditions of Sale (if applicable), and down payment per quotation (if applicable).

- If shipments are delayed by the Buyer, or because the Buyer's account is in arrears, payments shall become due on the date when the Seller is prepared to make shipment. Products held by the Seller for the Buyer shall be at the risk and expense of the Buyer.

- Damages, defects or shortages must be communicated immediately to MVP. Discrepancy in pricing and/or quantities on invoices must be reported within 30 days of the invoice date. Claims made 30 days or more following the invoice date will not be honored.

- Permission to return items must be requested and granted in advance. No credit will be given if items are returned prior to requesting and receiving permission. All returns are subject to a restocking fee. The standard 15% charges may be increased or decreased depending on the reason for the return. Special ordered items may not be returned.

- Seller warrants that the mechanical operation of the goods as specified shall be free from faults in respect to materials and workmanship for a period of 12 months for parts from the date of invoice. For systems, 12 months from start-up or, if earlier, 18 months from the date of the Bills of Lading. The warranty does not cover general wear and tear or damage due to negligence or improper use. Seller's liability under the warranty shall be limited solely to repair or replacement costs, and has no responsibility for reimbursing repair cost incurred by Buyer in connection with equipment without first giving written authorization for such charges. Seller makes no express warranties except those set forth in this agreement, and disclaims all other warranties, expressed or implied, including without limitation, implied warranties of non-infringement merchantability and fitness for a particular purpose. Seller accepts no liability for loss of production, loss of profits, or other direct or indirect damages. In any claim by the Buyer

against the Seller in respect of the goods, the liability of the Seller shall be limited to the value of the goods.

- Many factors beyond Seller's control contribute to the success of Buyer's finished products, such as raw materials used to manufacture the product. Equipment is warranted to perform to specifications detailed in quotation, but Seller is not liable for quality or quantity of finished products produced by Buyer.

- The country of origin is the United States of America. Sale, installation and all rights of the parties are governed by the laws of the state of Florida. Venue with regard to any litigation shall be in Pinellas County, Florida. The parties agree to waive all rights to trial by jury as to any and all disputes.

- The goods remain the property of the Seller until full payment is received.

- Sale of equipment is subject to application and issuance of proper US Government export license and regulations, if applicable.

- Installation of equipment is responsibility of Buyer and Seller, with cost responsibility and number of days provided as detailed in original customer Quotation. Seller will provide installation supervision personnel within 30 days of customer request. If installation is delayed by the Buyer more than six months from the date of shipment, or if customer facility or material/parts are not prepared for installation, seller will invoice full installation costs, up to $1,250 a day plus expenses, for each MVP installation technician on site. Seller has the option to waive this fee at its discretion.

- Parties shall be excused for delays caused by embargoes, acts of civil or military authorities, Acts of God, or other circumstances beyond the reasonable control of the parties. Notification of such delays must be made in writing within ten days of occurrence.

- Our agreement supersedes any previous agreement and applies in full.

SAFETY & WARNING INFORMATION:

OPERATING YOUR POLYESTER SYSTEM SAFELY

1. Introduction

Any tool, if used improperly, can be dangerous. Safety is ultimately the responsibility of those using the tool. In like manner, safe operation of polyester processes is the responsibility of those who use such processes and those who operate the equipment. This manual outlines procedures to be followed in conducting polyester operations safety. This system has been specifically designed for use of Polyester Resin, Gel-Coat, and Methyl Ethyl Ketone Peroxides (MEKP) applications. Other formulations or blends considered for use in this equipment is strictly prohibited without the expressed consent by Magnum Venus Plastech Inc. Magnum Venus Plastech cannot eliminate every danger nor foresee every circumstance that might cause an injury during equipment operation. Some risks, such as the high pressure liquid stream that exits the spray tip, are inherent to the nature of the machine operation and are necessary to the process in order to manufacture the end-product. For this reason, ALL personnel involved in polyester operations should read and understand the Safety Manual. It is very important for the safety of employees involved in the operation that equipment operators, maintenance and supervisory personnel understand the requirements for safe operation. Each user should examine his own operation, develop his own safety program and be assured that his equipment operators follow correct procedures. Magnum Venus Plastech hopes that this manual is helpful to the user and recommends that the precautions in this manual be included in any such program. Magnum Venus Plastech recommends this Safety Manual remain on your equipment at all times for your personnel safety. In addition to the manual, Magnum Venus Plastech recommends that the user consult the regulations established under the Occupational Safety & Health Act (OSHA), particularly the following sections:

1910.94 Pertaining to Ventilation.

1910.106 Pertaining to flammable liquids

1910.107 Pertaining to spray finishing operations, particularly Paragraph (m) Organic Peroxides and Dual Component Coatings.

Other standards and recognized authorities to consult are the National Fire Protection Association (NFPA) bulletins as follows:

NFPA No.33 Chapter 14, Organic Peroxides and Dual Component Materials

NFPA No.63 Dust Explosion Prevention

NFPA No.70 National Electrical Code

NFPA No.77 Static Electricity

NFPA No.91 Blower and Exhaust System

NFPA No.654 Plastics Industry Dust Hazards

Type of Fire Extinguishing equipment recommended: Fire Extinguisher – code ABC, rating number 4a60bc.

Extinguishing Media – Foam, Carbon Dioxide, Dry Chemical, Water Fog.

Copies of the above bulletins are available, at a nominal charge from:

National Fire Protection Association
470 Atlantic Avenue
Boston, MA 02210

Research Report No.11 of the American Insurance Association deal with “Fire, Explosion and Health Hazards of Organic Peroxides”. It is published by:

American Insurance Association
85 John Street
New York, NY 10038

Local codes and authorities also have standards to be followed in the operation of your spraying equipment. Your insurance carrier will be helpful in answering questions that arise in your development of safe procedures.

1.2 Personal Safety Equipment

Magnum Venus Plastech recommends the following Personal Safety Equipment for conducting safe operations of the Polyester Systems:

Magnum Venus Plastech recommends that the user consult the state and local regulations established for all Safety equipment listed.

2.0 Material Safety

2.1 Hazards Associated with Laminating Operations

The major hazards which should be guarded against in polyester laminating operations are those associated with:

1. The flammability and explosion dangers of the catalyst normally used – Methyl Ethyl Ketone Peroxide (MEKP).

2. The flammability dangers of clean-up solvents sometimes used (Magnum Venus Plastech recommends that clean-up solvents be non-flammable), and of resin diluents used, such as styrene.

3. The flammability dangers of catalyst diluents, if used. (Magnum Venus Plastech recommends that catalyst not be diluted.

4. The flammability dangers of the uncured liquid resins used.

5. The combustibility dangers of the cured laminate, accumulations of over spray, and laminate sandings.

6. The toxicity dangers of all the chemicals used in laminating operations with respect to ingestion, inhalation and skin and eye hazards.

2.2 Catalyst (Methyl Ethyl Ketone Peroxide)

MEKP is among the more hazardous materials found in commercial channels. The safe handling of the “unstable (reactive)” chemicals presents a definite challenge to the plastics industry. The highly reactive property which makes MEKP valuable to the plastics industry in producing the curing reaction of polyester resins also produces the hazards which require great care and caution in its storage, transportation, handling, processing and disposal. MEKP is a single chemical. Various polymeric forms may exist which are more or less hazardous with respect to each other. These differences may arise not only from different molecular structures (all are, nevertheless, called “MEKP”) and from possible trace impurities left from the manufacture of the chemicals, but may also arise by contamination of MEKP with other materials in its storage or use. Even a small amount of contamination with acetone, for instance, may produce an extremely shock-sensitive and explosive compound.

Contamination with promoters or materials containing promoters, such as laminate sandings, or with any readily oxidizing material, such as brass or iron, will cause exothermic “redox” reactions which can become explosive in nature. Heat applied to MEKP, or heat build-up from contamination reactions can cause it to reach what is called its Self-Accelerating Decomposition Temperature (SADT).

Researchers have reported measuring pressure rates-of-rise well in excess of 100,000 psi per second when certain MEKP’s reach their SADT. (For comparison, the highest pressure rate-of-rise listed in NFPA Bulletin NO.68, “Explosion Venting”, is 12,000 psi per second for an explosion of 12% acetylene and air. The maximum value listed for a hydrogen explosion is 10,000 psi per second. Some forms of MEKP, if allowed to reach their SADT, will burst even an open topped container. This suggests that it is not possible to design a relief valve to vent this order of magnitude of pressure rate-of-rise. The user should be aware that any closed container, be it a pressure vessel, surge chamber, or pressure accumulator, could explode under certain conditions. There is no engineering substitute for care by the user in handling organic peroxide catalysts. If, at any time, the pressure relieve valve on top of the catalyst tank should vent, the area should be evacuated at once and the fire department called. The venting could be the first indication of a heat, and therefore, pressure build-up that could eventually lead to an explosion. Moreover, if a catalyst tank is sufficiently full when the pressure relief valve vents, some catalyst may spray out, which could cause eye injury. For this reason, and many others, anyone whose job puts them in an area where this vented spray might go, should always wear full eye protection even when laminating operations are not taking place.

Safety in handling MEKP depends to a great extent on employee education, proper safety instructions and safe use of the chemicals and equipment. Workers should be thoroughly informed of the hazards that may result from improper handling of MEKP, especially in regards to contamination, heat, friction and impact. They should be thoroughly instructed regarding the proper action to be taken in the storage, use and disposal of MEKP and other hazardous materials used in the laminating operation. In addition, users should make every effort to:

A. Store MEKP in a cool, dry place in original containers away from direct sunlight and away from other chemicals.

B. Keep MEKP away from heat, sparks and open flames.

C. Prevent contamination of MEKP with other materials, including polyester over spray and sandings, polymerization accelerators and promoters, brass, aluminum and non-stainless steels.

D. Never add MEKP to anything that is hot, since explosive decomposition may result.

E. Avoid contact with skin, eyes and clothing. Protective equipment should be worn at all times. During clean-up of spilled MEKP, personal safety equipment, gloves and eye protection must be worn. Firefighting equipment should be at hand and ready.

F. Avoid spillage, which can heat up to the point of self-ignition.

G. Repair any leaks discovered in the catalyst system immediately, and clean up the leaked catalyst at once in accordance with the catalyst manufacturer's instructions.

H. Use only original equipment or equivalent parts from Magnum Venus Plastech in the catalyst system (i.e.: hoses, fitting, etc.) because a dangerous chemical reaction may result between substituted parts and MEKP.

I. Catalyst accumulated from the purging of hoses or the measurement of fluid output deliveries should never be returned to the supply tank, such catalyst should be diluted with copious quantities of clean water and disposed of in accordance with the catalyst manufacturer's instructions.

The extent to which the user is successful in accomplishing these ends and any additional recommendations by the catalyst manufacturer determines largely the safety that will be present in his operation.

2.3 Clean-Up Solvents and Resin Diluents

WARNING

A hazardous situation may be present in your pressurized fluid system! Hydrocarbon Solvents can cause an explosion when used with aluminum or galvanized components in a closed (pressurized) fluid system (pump, heaters, filters, valves, spray guns, tanks, etc.). The explosion could cause serious injury, death and/or substantial property damage. Cleaning agents, coatings, paints, etc. may contain Halogenated Hydrocarbon Solvents. Some Magnum Venus Plastech spray equipment includes aluminum or galvanized components and will be affected by Halogenated Hydrocarbon Solvents.

A. There are three key elements to the Halogenated Hydrocarbon (HHC) solvent hazard.

a. The presence of HHC solvents. 1,1,1 – Trichloroethane and Methylene Chloride are the most common of these solvents. However, other HHC solvents are suspect if used; either as part of paint or adhesives formulation, or for clean-up flushing. b. Aluminum or Galvanized Parts. Most handling equipment contains these elements. In contact with these metals, HHC solvents could generate a corrosive reaction of a catalytic nature.

b. Equipment capable of withstanding pressure. When HHC solvent contacts aluminum or galvanized parts inside a closed container such as a pump, spray gun, or fluid handling system, the chemical reaction can, over time, result in a build-up of heat and pressure, which can reach explosive proportions.

When all three elements are present, the result can be an extremely violent explosion. The reaction can be sustained with very little aluminum or galvanized metal; any amount of aluminum is too much.

A. The reaction is unpredictable. Prior use of an HHC solvent without incident (corrosion or explosion) does NOT mean that such use is safe. These solvents can be dangerous alone (as a clean-up or flushing agent) or when used as a component or a coating material. There is no known inhibitor that is effective under all circumstances. Furthermore, the mixing of HHC solvents with other materials or solvents, such as MEKP, alcohol, and toluene, may render the inhibitors ineffective.

B. The use of reclaimed solvents is particularly hazardous. Reclaimers may not add any inhibitors. Also, the possible presence of water in reclaimed solvents could feed the reaction.

C. Anodized or other oxide coatings cannot be relied upon to prevent the explosive reaction. Such coatings can be worn, cracked, scratched, or too thin to prevent contact. There is no known way to make oxide coatings or to employ aluminum alloys, which will safely prevent the chemical reaction under all circumstances.

D. Several solvent suppliers have recently begun promoting HHC solvents for use in coating systems. The increasing use of HHC solvents is increasing the risk. Because of their exemption from many State Implementation Plans as Volatile Organic Compounds

(VOC's), their low flammability hazard, and their not being classified as toxic or carcinogenic substances, HHC solvents are very desirable in many respects.

WARNING: **Do not use Halogenated Hydrocarbon solvents in pressurized fluid systems having aluminum or galvanized wetted parts.**

NOTE: **Magnum Venus Plastech is aware of NO stabilizers available to prevent Halogenated Hydrocarbon solvents from reaction under all conditions with aluminum components in closed fluid system.** ***TAKE IMMEDIATE ACTION…*** **Halogenated Hydrocarbon solvents are dangerous when used with aluminum components in a closed fluid system.**

A. Consult your material supplier to determine whether your solvent or coating contains Halogenated Hydrocarbon Solvents.

B. Magnum Venus Plastech recommends that you contact your solvent supplier regarding the best non-flammable clean-up solvent with the heat toxicity for your application.

C. If, however, you find it necessary to use flammable solvents, they must be kept in approved, electrically grounded containers.

D. Bulk solvent should be stored in a well-ventilated, separate building, 50 feet away from your main plant.

E. You should allow only enough solvent for one day's use in your laminating area.

F. "NO SMOKING" signs must be posted and observed in all areas of storage or where solvents and other flammable materials are used.

G. Adequate ventilation (as covered in OSHA Section 1910.94 and NFPA No.91) is important wherever solvents are stored or used, to minimize, confine and exhaust the solvent vapors.

H. Solvents should be handled in accordance with OSHA Section 1910.106 and 1910.107.

2.4 Catalyst Diluents

Magnum Venus Plastech spray-up and gel-coat systems currently produced are designed so that catalyst diluents are not required. Magnum Venus Plastech, therefore, recommends that diluents not be used. This avoids the possible contamination which could lead to an explosion due to the handling and mixing of MEKP and diluents. In addition, it eliminates any problems from the diluents being contaminated through rust particles in drums, poor quality control on the part of the diluents suppliers, or any other reason. If, however, diluents are absolutely required, contact your catalyst supplier and follow his instructions explicitly. Preferable, the supplier should premix the catalyst to prevent possible “on the job” contamination while mixing.

WARNING

If diluents are not used, it should be remembered that catalyst spillage, gun, hose and packing leaks are potentially more hazardous, since each drop contains a higher concentration of catalyst, and therefore will react quicker with over spray and the leak.

2.5 Cured Laminate, Overspray and Laminate Sandings Accumulation

A. Remove all accumulations of overspray, FRP sandings, etc. from the building as they occur. If this waste is allowed to build up, spillage of catalyst is more likely to start a fire; in addition, the fire would burn hotter and longer.

B. Floor coverings, if used, should be non-combustible.

C. Spilled or leaked catalyst may cause a fire if it comes in contact with an FRP product, over-sprayed chop or resin, FRP sandings or any other material with MEKP.

To prevent this spillage and leakage, you should:

1. Maintain your Magnum Venus Plastech System. Check the gun several times daily for catalyst and resin packing or valve leaks. REPAIR ALL LEAKS IMMEDIATELY.

2. Never leave the gun hanging over, or lying inside the mold. A catalyst leak in this situation would certainly damage the part, possibly the mold, and may cause a fire.

3. Inspect resin and catalyst hoses daily for wear or stress at the entry and exits of the boom sections and at the hose and fittings. Replace if wear or weakness is evident or suspected.

4. Arrange the hoses and fiberglass roving guides so that the fiberglass strands DO NOT rub against any of the hoses at any point. If allowed to rub, the hose will be cut through, causing a hazardous leakage of material which could increase the danger of fire. Also, the material may spew onto personnel in the area.

2.7 Toxicity of Chemicals

A. Magnum Venus Plastech recommends that you consult OSHA Sections 1910.94, 1910.106, 1910.107 and NFPA No.33, Chapter 14, and NFPA No.91.

B. Contact your chemical supplier(s) and determine the toxicity of the various chemicals used as well as the best methods to prevent injury, irritation and danger to personnel.

C. Also determine the best methods of first aid treatment for each chemical used in your plant.

2.8 Treatment of Chemical Injuries

Great care should be used in handling the chemicals (resins, catalyst and solvents) used in polyester systems. Such chemicals should be treated as if they hurt your skin and eyes and as if they are poison to your body. For this reason, Magnum Venus Plastech recommends the use of protective clothing and eye wear in using polyester systems. However, users should be prepared in the event of such an injury. Precautions include:

1. Know precisely what chemicals you are using and obtain information from your chemical supplier on what to do in the event the chemical gets onto your skin or into the eyes, or is swallowed.

2. Keep this information together and easily available so that it may be used by those administering first aid or treating the injured person.

3. Be sure the information from your chemical supplier includes instructions on how to treat any toxic effects the chemicals have.

WARNING

Contact your doctor immediately in the event of any injury and give him the information you have collected. If your information includes first aid instructions, administer first aid immediately while you are contacting your doctor.

Fast treatment of the outer skin and eyes that contact such chemicals generally includes immediate and thorough washing of the exposed skin and immediate and continuous flushing of the eyes with lots of clean water for at least 15 minutes or more. These general instructions of first aid treatment, however, may be incorrect for some chemicals; that is why you must know the chemicals and treatment before an accident occurs. Treatment for swallowing a chemical frequently depends upon the nature of the chemical.

NOTE: **Refer to your System User Manual for complete and detailed operating instructions and service information.**

3.0 Equipment Safety

WARNING

Magnum Venus Plastech suggests that personal safety equipment such as EYE GOGGLES, GLOVES, EAR PROTECTION, and RESPIRATORS be worn when servicing or operating this equipment. Ear protection should be worn when operating a fiberglass chopper to protect against hearing loss since noise levels can be as high as 116 dB (decibels). This equipment should only be operated or serviced by technically trained personnel!

WARNING

Never place fingers, hands, or any body part near or directly in front of the spray gun fluid tip. The force of the liquid as it exits the spray tip can cause serious injury by shooting liquid through the skin. NEVER LOOK DIRECTLY INTO THE GUN SPRAY TIP OR POINT THE GUN AT OR NEAR ANOTHER PERSON. (TREAT THE GUN AS IF IT WERE A LOADED PISTOL.)

3.1 Emergency Stop Procedures

The following steps should be followed in order to stop the machinery in an emergency situation

1. The ball valve located where the air enters the power head of the resin pump, should be moved to the “OFF” or closed position. To do this, simply rotate the lever on the ball valve 90 degrees. Doing this will cause all the system air to bleed out of the system in a matter of a few seconds, making the system incapable of operating

NOTE: Step 2 is a precautionary step and should be followed whenever the above mentioned ball valve is activated to the stop mode. Failure to do so, can damage the regulators and components on reactivating to the “ON” position.

2. Turn all system regulators to the “OFF” position (counter-clockwise) position

NOTE: Verify that the Catalyst relief line, located on the catalyst manifold, and the resin return line, located on the resin filter, are secured relieving catalyst and resin fluid pressure.

3. Catalyst pressure in the catalyst pump can be eliminated by rotating the ball valve on the catalyst manifold 90 degrees to the “open” or “on” position.

Note: The “open” or “on” position is when the ball valve handle is parallel (in line) with the ball valve body. The “closed” or “off” position is when the ball valve handle is perpendicular (across) the ball valve body.

4. Resin pressure in the resin pump can be eliminated by rotating the ball valve on the resin filter 90 degrees to the “open” or “on” position. Place a container under the ball valve to catch any resin that is ejected out of the valve.

3.2 Grounding

Grounding an object means providing an adequate path for the flow of the electrical charge from the object to the ground. An adequate path is one that permits charge to flow from the object fast enough that it will not accumulate to the extent that a spark can be formed. It is not possible to define exactly what will be an adequate path under all conditions since it depends on many variables. In any event, the grounding means should have the lowest possible electrical resistance. Grounding straps should be installed on all loose conductive objects in the spraying area. This includes material containers and equipment. Magnum Venus Plastech recommends grounding straps be made of AWG No.18 stranded wire as a minimum and the larger wire be used where possible. NFPA Bulletin No77 states that the electrical resistance of such a leakage path may be as low as 1 meg ohm (10 ohms) but that resistance as high as 10,000 meg ohms will produce an adequate leakage path in some cases. Whenever flammable or combustible liquids are transferred from one container to another, or from one container to the equipment, both containers or container and equipment shall be effectively bonded and grounded to dissipate static electricity. For further information, see **National Fire Protection Association** (NFPA) 77, titled "Recommended Practice on Static Electrical". Refer especially to section 7-7 titled "Spray Application of Flammable and Combustible Materials". Check with local codes and authorities for other specific standards that might apply to your application. NEVER USE HARD MATERIALS SUCH AS WIRE, PINS, ETC., TO CLEAR A PLUGGED GUN. HARD MATERIALS CAN CAUSE PERMANENT DAMAGE. DAB WITH A BRISTLE BRUSH, BLOW BACKWARDS WITH AIR UNTIL CLEAR WHILE WEARING A PROTECTIVE EYE SHIELD. REPEAT AS MANY TIMES AS NECESSARY. DO NOT PERFORM ANY MAINTENANCE OR REPAIRS UNTIL YOU HAVE FOLLOWED THE PRECAUTIONS STATED ABOVE. IF YOU, AS AN EQUIPMENT OPERATOR OR SUPERVISOR, DO NOT FEEL THAT YOU HAVE BEEN ADEQUATELY TRAINED OR INSTRUCTED AND THAT YOU LACK THE TECHNICAL KNOWLEDGE TO OPERATE OR PERFORM MAINTENANCE ON A PIECE OF MAGNUM VENUS PLASTECH EQUIPMENT, PLEASE CALL MAGNUM VENUS PLASTECH BEFORE OPERATING OR PERFORMING MAINTENANCE ON THE EQUIPMENT. IF YOU HAVE ANY QUESTIONS REGARDING THE ABOVE PRECAUTIONS OR ANY SERVICE OR OPERATION PRECEDURES, CALL YOUR MAGNUM VENUS PLASTECH DISTRIBUTOR OR MAGNUM VENUS PLASTECH.

NOTICE: All statements, information and data given herein are believed to be accurate and reliable but are presented without guaranty, warranty or responsibility of any kind express or implied. The user should not assume that all safety measures are indicated or that other measures are not required.

DANGER: Contaminated catalyst may cause Fire or Explosion. Before working on the catalyst pump or catalyst accumulator, wash hands and tools thoroughly. Be sure work area is free of dirt, grease or resin. Clean catalyst system components with clean water only.

DANGER: Eye, skin and respiration hazard. The Catalyst, MEKP, may cause blindness, skin irritation or breathing difficulty. Keep hands away from face. Keep food and drink away from work area.

WARNING: Please refer to your catalyst manufacturer's safety information regarding the safe handling and storage of catalyst. Wear appropriate safety equipment as recommended.

Introduction:

This manual, the ***DURAMAX GUN MANUAL***, provides information you need to perform simple maintenance and repair on your equipment.

- Step-by-step assembly and disassembly procedures are included for each component.

Please read the manual carefully. Follow the steps in the order given, otherwise you may damage the equipment or injure yourself.

DANGER: Always wear proper safety equipment, including eye protection and gloves when performing service and repair on this equipment.

During Disassembly:

As you disassemble the equipment, lay out the components on a clean surface in the correct order and direction. This will help you to reassemble them.

Gun Assemblies:

This manual covers the following DuraMAX Gun Assemblies:

DMX-3000	DURAMAX GUN ASSEMBLY
DMX-3000-A	AUTO DURAMAX GUN ASSEMBLY
DMX-3000-ITW	DURAMAX GUN ASSEMBLY – REVERSALBE TIP
DMX-3000-SIG	DURAMAX GUN ASSEMBLY – WITH AIR SIGNAL
DMX-3000-ST	DURAMAX GUN ASSEMBLY – FIT MIX CHAMBER
DMX-3000-W	DURAMAX GUN ASSEMBLY – WETOUT GUN
DMX-3000-W-SIG	DURAMAX GUN ASSEMBLY – WETOUT & AIR SIGNAL

Disassembly:

WARNING: Always remove fluid pressures before working on the unit.

WARNING: Be careful not to bend the catalyst and resin needles.

Built in shut off valves

The MVP DuraMAX gun incorporates Rapid Access Design (R.A.D.). With fewer parts and maintenance-friendly access, routine replacements take only minutes. This rugged gun features a carbide needle and seat (standard), and is *the only gun on the market with built-in shut-off valves for resin and catalyst.* Now you can perform maintenance without the need to drain pressure or remove hoses.

To use the built in shut off valves tighten the catalyst and resin shut off needles into the fittings to prevent the material from leaking through into the gun head. It is still recommended to relief the excess pressure by momentarily opening the catalyst recirculation valve and resin dump valve before working on the gun.

Initial Disassembly . . .

1. Remove Catalyst, Resin and Flush fluid pressure from system before disassembly.

2. Remove Catalyst, Resin and Flush lines from the Gun Block Assembly (DMX-3001-01).

3. Remove Chopper assembly from Gun Handle (54350-3) (if applicable).

4. Remove Screw (00145) from Trigger Stud (54630-1).

5. Remove Trigger Stud (54630-1) from Gun Handle (54350-3) and Trigger (MAX-2040).

6. Remove Trigger (MAX-2040) from gun assembly.

7. To remove the Gun Block Assembly (DAX-3001-01) from Gun Handle (54350-3) remove Cap Screw (F-CS-04C-12) located at the back center, just above the Gun Block Assembly (DMX-3001-01).

You now have two components, the Gun Block Assembly and Gun Handle Assembly.

Gun Handle Disassembly

1. Remove Spring Retainers (54000-1) and Springs (04039-1) from handle.
2. Remove Valve Body Assembly (54440-1) from Handle (54350-3).
3. Remove Spring (04070-1) and Poppet Assembly (MG-2031).
4. Unscrew Retainer (54420-1) from Valve Body (54440-1)
5. Remove O-Ring (O-S-104A)

Gun Head Disassembly

1. Remove Needle Guide (53900-1) and Jam Nut (53800-1) from Catalyst Piston Needle (DMX-3008-01)
2. Unscrew the Packing Nut (MG-1022) from the catalyst side of the gun block
3. Pull Catalyst Needle (DMX-3008-01), Packing Seal (DMX-2008) and Seal Retainer (DMX-2009) from the Needle Housings (DMX-3009-02)
4. Unscrew Catalyst Needle Housing (DMX-3009-02) from Gun Head (DMX-3001-01)
5. Remove Catalyst Seat (CPR-2012-02) and O-ring (O-S-012) from the gun block
6. Unscrew Resin Seal Housing (MAX-2013) from Gun Head (DMX-3001-01)
7. Remove Needle Guide (53900-1) and Jam Nut (53800-1) from Needle (MAX-2010-01)
8. Unscrew Packing Nut (MG-1022) from Seal Housing (MAX-2013)
9. Pull Needle (MAX-2010-01) from Seal Housing (MAX-2013)
10. Remove Packing Seal (MAX-2008) and Seal Retainer (MAX-2009) from Seal Housing (MAX-2013)
11. Unscrew Carbide Seat (MAX-2011-01) from Gun Head (DMX-3001-01) using a 9/64 hex Allen wrench.
12. Remove O-ring (O-T-010) from the gun block
13. Remove Nozzle Cap (8704-4-1), Nozzle, and Turbulent Mixer

14. Remove the Mix Housing (MAX-2017-T) by removing the two Cap Screws (F-CS-1024-09).

15. Take the Catalyst Injector (5104-03-01) out of the Distribution Ring (5104-18-1) (see Catalyst Injector Disassembly and Assembly for reference)

16. Remove the O-ring (O-S-018) and Distribution Ring (5104-18-1) from Mix Housing (MAX-2017-T).

17. Remove Flush Valve Assembly (5104-01-01) from the side of the gun block.

18. Remove Catalyst Plug (53110-1) and Seal (02441-1) from the side of the gun block.

19. Remove Material Fitting (DMX-3005) and Catalyst Fitting (DMX-3006-01).

20. Unscrew from both sides of the gun Fitting Needle Housing (DMX-3003)

21. Unscrew Packing Nut (DMX-3002) from both Needle Housings (DMX-3003).

22. Remove O-Ring (O-T-010) and Needle (DMX-3004) from both needle housings.

Flush Valve Disassembly

1. Remove the split seal from the flush valve body.

2. Remove the flush valve body from the flush valve neck.

3. Remove the flush valve seal from the flush valve body.

4. Unscrew the flush seal body (5104-23-1) from the flush valve button (5104-25-01).

5. Remove the spring (9203-2-3).

6. Use a scribe to remove the O-ring (O-K-008) from the flush valve button.

7. Remove the O-ring (O-A-007) from the flush seal body (5104-23-1).

8. Set parts aside for now or go down to flush valve assembly

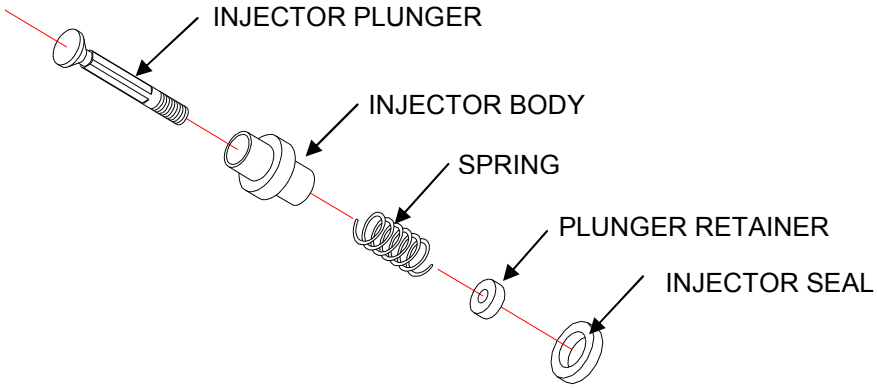
9. Discard and replace the flush valve's O-rings and seals, after reading the note below.

Note: Do not replace O-ring (O-K-008) unless it is worn or damaged. This O-ring is designed for use with all solvents. In some cases O-K-008 O-ring can be replaced with the more economical O-ring (O-E-008).

Catalyst Injector Disassembly

1. Remove Injector Seal (5104-13-1) from Injector Body (5104-15-1)
2. Unscrew Plunger Retainer (5104-14-1) from Injector Plunger (5104-16-1)
3. Remove Compression Spring (9203-2-2) from Injector Plunger (5104-16-1)
4. Remove Injector Plunger (5104-16-1) from Injector Body (5104-15-1)
5. Reassemble with new parts as required.

NOTE: Discard all parts to be replaced by the repair kit. All remaining parts should be thoroughly cleaned, inspected for damage, and replaced if necessary.



Assembly:

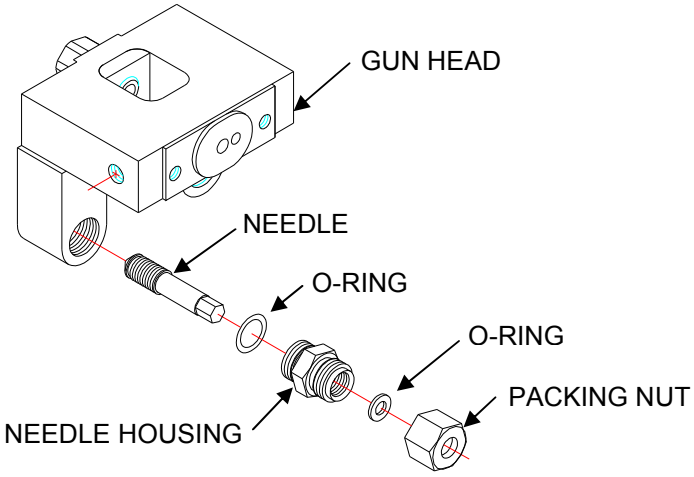
Gun Handle Assembly

1. Apply lubricant to Springs (04039-1) and insert into Gun Handle (54350-3)
2. Thread Spring Retainers (54000-1) over Springs (04039-1) into Gun Handle (54350-3)
3. Slide Spring (04070-1) onto the end of the Poppet Assembly (MG-2031)
4. Insert Poppet Assembly (MG-2031) into Valve Body (54440-1)
5. Slide O-ring (O-S-104A) over Poppet Assembly (MG-2031) and retain with Packing Retainer (54420-1)
6. Screw Assembled Valve Body (54440-1) into the Gun Handle (54350-3)

Gun Head Assembly

1. Install new Seal (02441-1) onto Plug (53110-1) then thread Plug into Gun Head (DMX-3001-01)
2. Install re built Flush Valve Assembly (5104-01-01) into resin side of Gun Head (DMX-3001-01)
3. Install Distribution Ring (5104-18-1), into the Mix Housing (MAX-2017-T)
4. Install new O-Ring (O-S-018) into Mix Housing (MAX-2017-T)
5. Insert Catalyst Injector Assembly (5104-03-01) into Distribution Ring (5104-18-1). The spring side should be facing you.
6. Attach assembled Mix Housing (MAX-2017-T) to Gun Head (DMX-3001-1) using the two (2) Cap Screws (F-CS-1024-10).
7. Place New O-Ring (O-S-012) on Catalyst Fitting (MAX-2019) and Resin Fitting (MAX-2022). Install both fittings into gun, making sure they are on the correct sides of the gun head.

8. Install Needle (DMX-3004) into Needle Housing (DMX-3003) and place a new O-ring (O-T-010) onto the end sticking out of the needle housing.



9. Screw Packing Nut (DMX-3002) onto Needle Housing (DMX-3003) over the O-ring and needle.

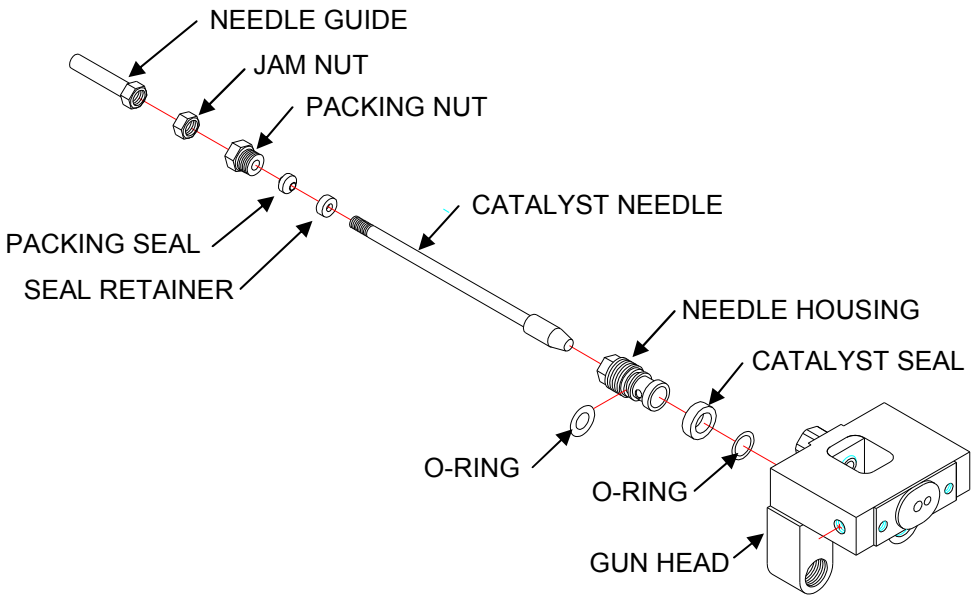
NOTE: Repeat steps 8 and 9 for both Needle Housings (DMX-3003).

10. Screw both assembled Needle Housings (DMX-3003) into both the catalyst and resin sides of the gun head.

11. Install new O-Ring (O-S-012) into Catalyst Needle Seat area of the Gun Head (DMX-3001-01)

12. Install new O-Ring (O-S-012) on Catalyst Needle Housing (DMX-3009-02) and thread into Gun Head (DMX-3001-01)

13. Insert Catalyst Piston Needle (DMX-3008-01) into the Catalyst Needle Housing (DMX-3009-02).



Install Seal Retainer (MAX-2009) over the catalyst needle into catalyst needle housing.

14. Next install a new Packing Seal (MAX-2008) over the catalyst needle into the needle housing.

15. Thread the Packing Nut (MG-1022) into the Catalyst Needle Housing (DMX-3009-02). Just a little over finger tight – do not over tighten.

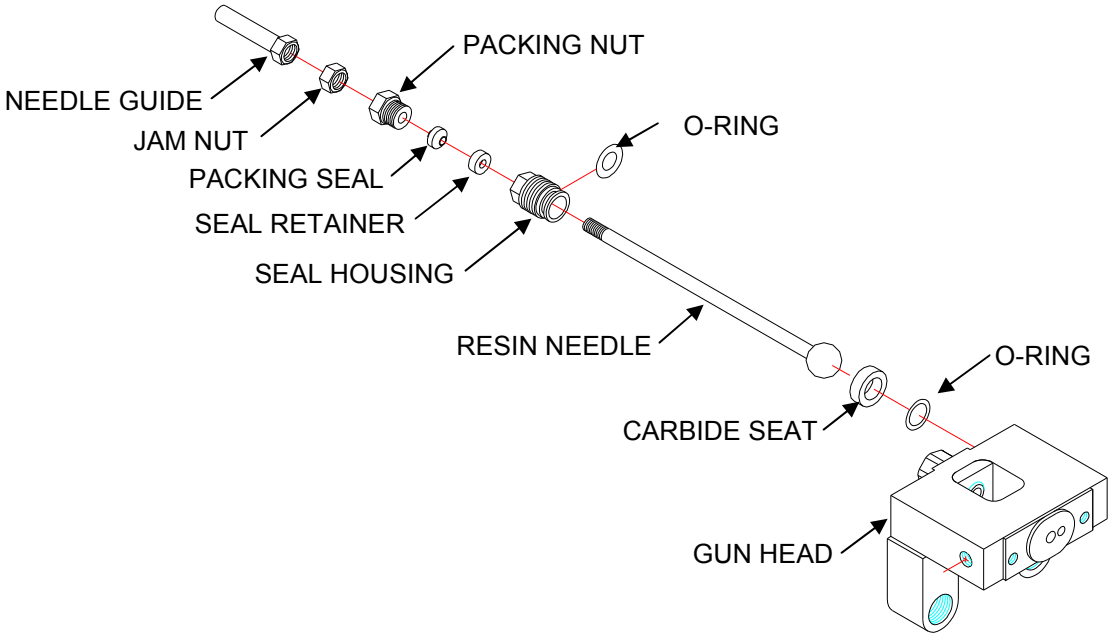
16. Thread Jam Nut (53800-1) then Needle Guide (53900-1) onto catalyst needle end.

NOTE: Use caution not to bend the catalyst needle while performing the remaining assembly procedures.

17. Install new O-Ring (O-T-010) into Resin Needle Seat area of the Gun Head (DMX-3001-01)

18. Firmly thread Carbide Seat (MAX-2011-01) into Gun Head (DMX-3001-01).

19. Install new O-Ring (O-S-012) on Seal Housing (MAX-2013) and lightly grease threads.



20. Install Resin Needle (MAX-2010-01) thru Seal Housing (MAX-2013)

21. Slide Seal Retainer (MAX-2009) then Packing Seal (MAX-2008) over the Resin Needle (MAX-2010-01).

22. Slide Packing Nut (MG-1022) over the Resin Needle (MAX-2010-01) and thread into Seal Housing (MAX-2013). Just a little over finger tight – do not over tighten.

23. Thread Jam Nut (53800-1) then Needle Guide (53900-1) onto resin needle end.

24. Thread Seal Housing and Resin Needle Assembly into the Gun Head (DMX-3001-01)

NOTE: Use caution not to bend the catalyst and resin needle while performing the remaining assembly procedures.

Assemble Flush Valve

1. Place the O-ring (O-K-008) on the flush valve button (5104-25-1).
2. Insert the spring (9203-2-3) onto the flush valve button.
3. Push the button and spring into the flush valve body (5104-24-1).
4. Place the O-ring (O-A-007) on the flush seal body (5104-23-1).
5. Insert a flush seal body (5104-23-1) into the end of the flush valve body and screw it onto the button.
6. Place a flush valve seal (5104-26-1) on the flush valve body.
7. Install the flush valve body (5104-24-1) into the flush valve neck (5104-22-1).
8. Install the split seal (5104-21-1) onto the flush valve body (5104-24-1).

Note: If using O-ring part number O-K-008 (O-ring is used on the flush button), you do not need to replace the O-ring unless it is showing obvious signs of wear or damage. This O-ring is specially designed for use with all solvents.

WARNING: Be careful not to bend the catalyst and resin needles.

Assembly Gun Head and Gun Handle

1. Attach the Gun Head Assembly (DMX-3001-01) to the Gun Handle (54350-3) using Cap Screw (F-CS-04C-12).
2. Slide Trigger (54360-1) into place against the needles and line up the holes with the handle.
3. Push Trigger Stud (54630-1) thru both the Trigger (MAX-2040) and the Gun Handle (54350-3) and retain with Screw (00145).

Needle Adjustment:

Gun Adjustment and Start Up

1. Make sure trigger and trigger bar are not worn, loose or damaged before adjusting gun or needle guides.
2. Adjust the Resin Needle Guide and Jam Nut so they will open just before the Catalyst Needle, never catalyst first. How much you open the resin needle before you open the catalyst needle will depend on the resin viscosity and may have to be changed as the resin temperature changes. See the Testing and Adjusting Manual (12016-2) for testing your gun.
3. Test the gun by putting 100psi of air to the catalyst and resin fittings and putting the gun in a tub of water.

Troubleshooting:

Catalyst Problems

1. Catalyst leaking around Needle (inside packing nut)
   - Lightly tighten Packing Nut (MG-1022)
   - Replace Packing Seal (MAX-2008)
   - Check for excessive pressure in catalyst system
   - Check that the needle is not bent
2. Catalyst leaking around Needle Housing
   - Replace O-Ring (O-S-012) on Needle Housing (CPR-2003-02)
3. Catalyst leaking from the Mix Housing / front of the gun
   - Check Catalyst Piston Needle (DMX-3008-01) for ware or damage
   - Replace Catalyst Seat (CPR-2012-02)
   - Replace O-Ring (O-S-012) under the catalyst seat
   - Damaged or Weak Return Spring (04039-1), replace as needed
   - Check for excessive pressure in catalyst system
   - Check to see if the resin needle is bent
4. Catalyst leaking from around plug on the side of the gun head
   - Replace plug Seal (02441-1)
5. No catalyst from the gun
   - Make sure trigger is pulling catalyst needle back / open
   - Check Catalyst Injector (5104-03-01) for proper operation (drawing 5104-03-01)
   - Check gun block for blockages
   - Check catalyst pump for proper operation (See catalyst pump manual)
6. Catalyst leaking between fitting and gun block
   - Replace O-Ring (O-S-012) on fitting
7. Catalyst leaking from around the catalyst shoot off needle
   - Lightly tighten Packing Nut (DMX-3002)
   - Replace O-Ring (O-T-010)

Resin Problems

1. Resin leaking around Needle (inside Needle Housing CPR-2004-01)
   - Check that the needle is not bent
   - Lightly tighten Packing Nut (MG-2022)
   - Replace Packing Seal (MAX-2008)
2. Resin leaking around Needle Housing
   - Replace O-Ring (O-S-012) on Needle Housing (MAX-2013)
3. Resin leaking from the Mix Housing / front of the gun
   - Check Piston Needle (MAX-2010-01) for wear or damage, replace as needed
   - Check Carbide Seat (MAX-2011-01) for wear or damage, replace as needed
   - Replace O-Ring (O-T-010) under the Carbide Seat (MAX-2011-01)
   - Damaged or Weak Return Spring (04039-1), replace as needed
   - Check for excessive pressure in resin system
4. No Resin from the gun
   - Make sure trigger is pulling resin needle back / open
   - Check gun block for blockages
   - Check resin pump for proper operation (See resin pump manual)
5. Resin leaking between fitting and gun block
   - Replace O-Ring (O-S-012) on fitting
6. Resin leaking from around the resin shut off needle
   - Lightly tighten Packing Nut (DMX-3002)
   - Replace O-Ring (O-T-010)

Flush Problems

1. Solvent leaking from around flush button (inside flush body)
   - Replace O-Ring (O-E-008)* on valve button
2. Solvent leaking from around flush neck (next to gun block)
   - Replace Split Seal (5104-21-1)
3. Solvent leaking from between the flush neck and flush body
   - Replace Flush Valve Seal (5104-26-1)
4. Solvent leaking around flush elbow fitting
   - Tighten flush swivel Elbow Fitting (TRU-1021)
   - Replace Nylon Seal (7304-3-1)
   - Replace flush swivel Elbow Fitting (TRU-1021)
5. Solvent leaking from Mix Housing / front of the gun
   - Check for debris in seal area or damage to flush body
   - Replace O-Ring (O-A-007) on flush seal body
   - Check for excessive pressure is flush system, set to no more than 80psi

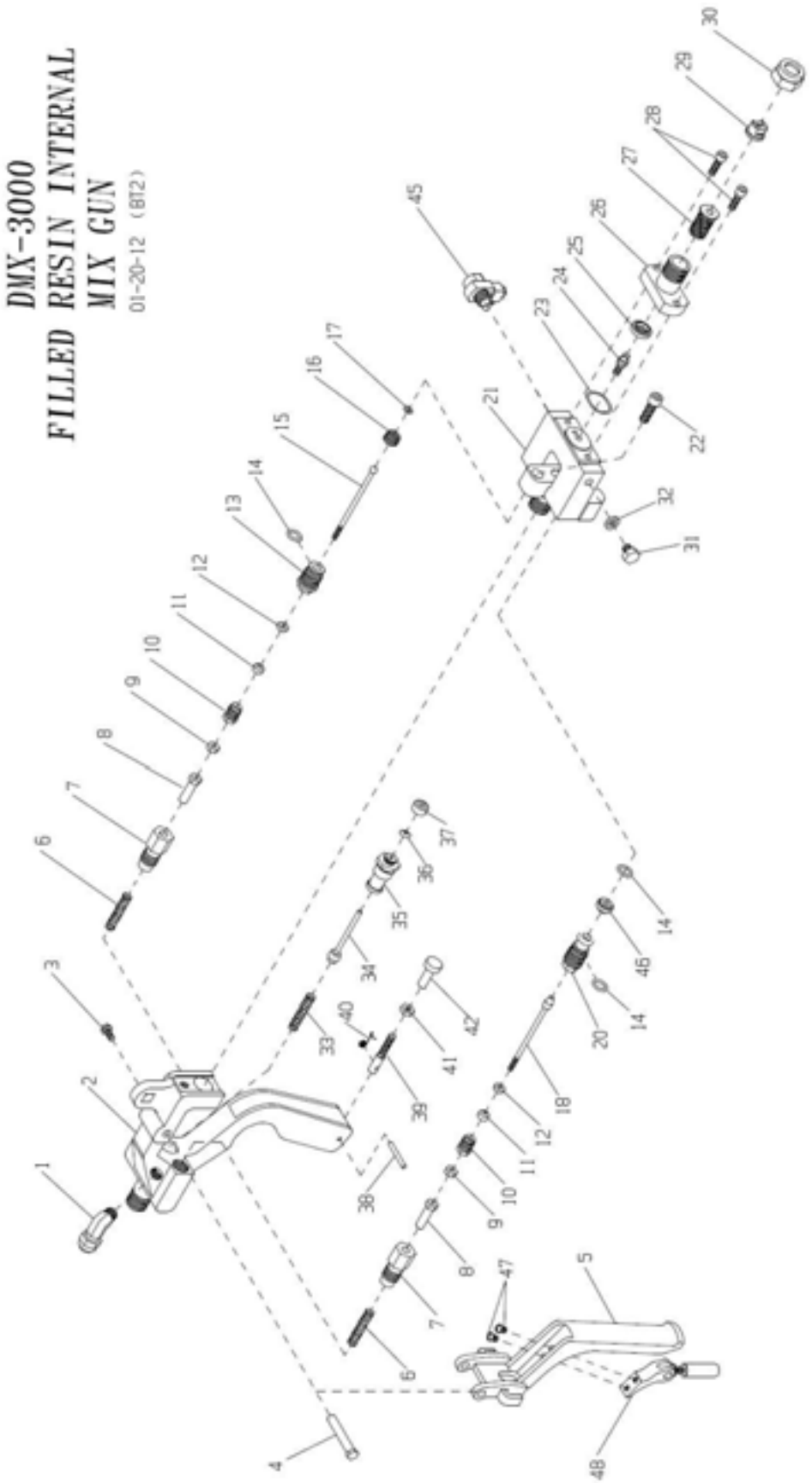
General Problems

1. Material leaking from around the mix chamber
   · Replace Mix Housing Seal (O-S-018)
   · Replace Catalyst Injector Seal (5104-13-1)
2. Air leaking from around poppet needle
   · Tighten Retainer (54420-1) (caution do not over tighten, this will make the poppet needle move slowly or not move at all.)
   · Replace O-Ring (O-S-104A)
3. Air leaking from around poppet valve body
   · Tighten Poppet Valve Body (54440-1) into Gun Handle (54350-3)
4. Air leaking from fitting on handle or to chopper
   · Retainer (54420-1) may be too tight and holding valve open
   · Check Poppet Assembly (MG-2031) for wear or damage
   · Check Poppet Valve Body (54440-1) seat area for ware or damage
5. Material leaking from around nozzle or nozzle cap
   · Tighten Nozzle Cap (8704-4-1) (caution do not over tighten or you may damage the Turbulent Mixer (5107-27-3) Hand tighten only
   · Check Turbulent Mixer (5107-27-3) for damage or ware
   · Check front of Mix Housing (MAX-2017-T) for damage
6. Trigger Action stiff or hard
   · Check Trigger (54360-1) for damage
   · Check Trigger Stud (54630-1) and Screw (00145) for damage, remove and lubricate as needed.
   · Check Needle Guides (53900-1) and Springs (04039-1) for damage, remove and lubricate as needed
   · Check Spring Retainer (54000-1) for ware or damage
   · Check Needles and Needle Housings for hardened or sticky material

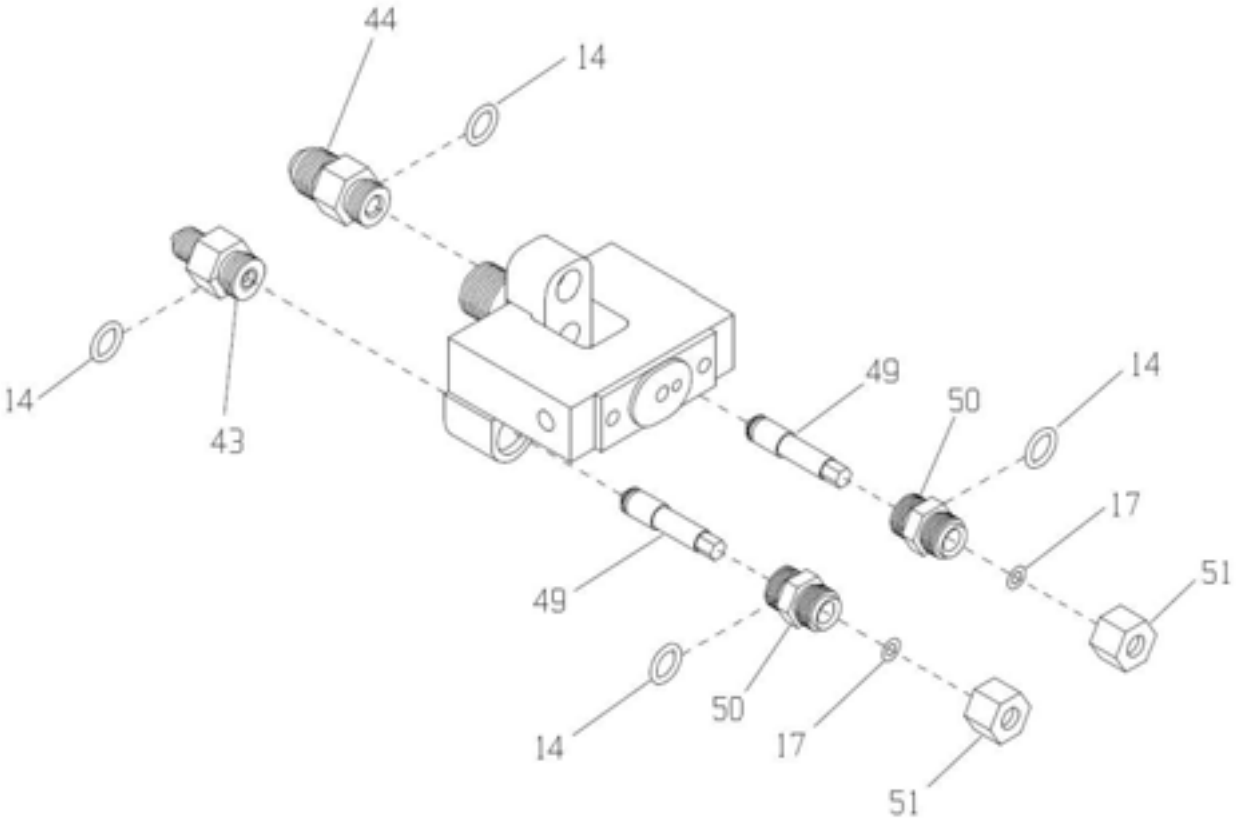
Parts Drawings:

PARTS DRAWINGS:

DMX-3000	FILLED RESIN INTERNAL MIX GUN
DMX-3000-A	AUTO DURAMAX GUN ASSEMBLY
DMX-3000-ITW	FILLED RESIN INTERNAL MIX GUN
DMX-3000-SIG	FILLED RESIN CHOPPER WITH SIGNAL
DMX-3000-ST	DURAMAX GUN ASSEMBLY – FIT MIX CHAMBER
DMX-3000-W	INTERNAL MIX WETOUT GUN
DMX-3000-W-SIG	INTERNAL MIX WETOUT GUN WITH SIGNAL
DMX-3000-ITW-SK	SEAL KIT - DURAMAX GUN ASSEMBLY
DMX-3000-SK	SEAL KIT - DURAMAX GUN ASSEMBLY
DMX-3000-ST-SK	SEAL KIT - DURAMAX GUN ASSEMBLY


DMX-3000
FILLED RESIN INTERNAL MIX GUN
01-20-12 (BT2)

DMX-3000
PAGE 2



DMX-3000
DURAMAX GUN
01-20-12
PARTS KEY

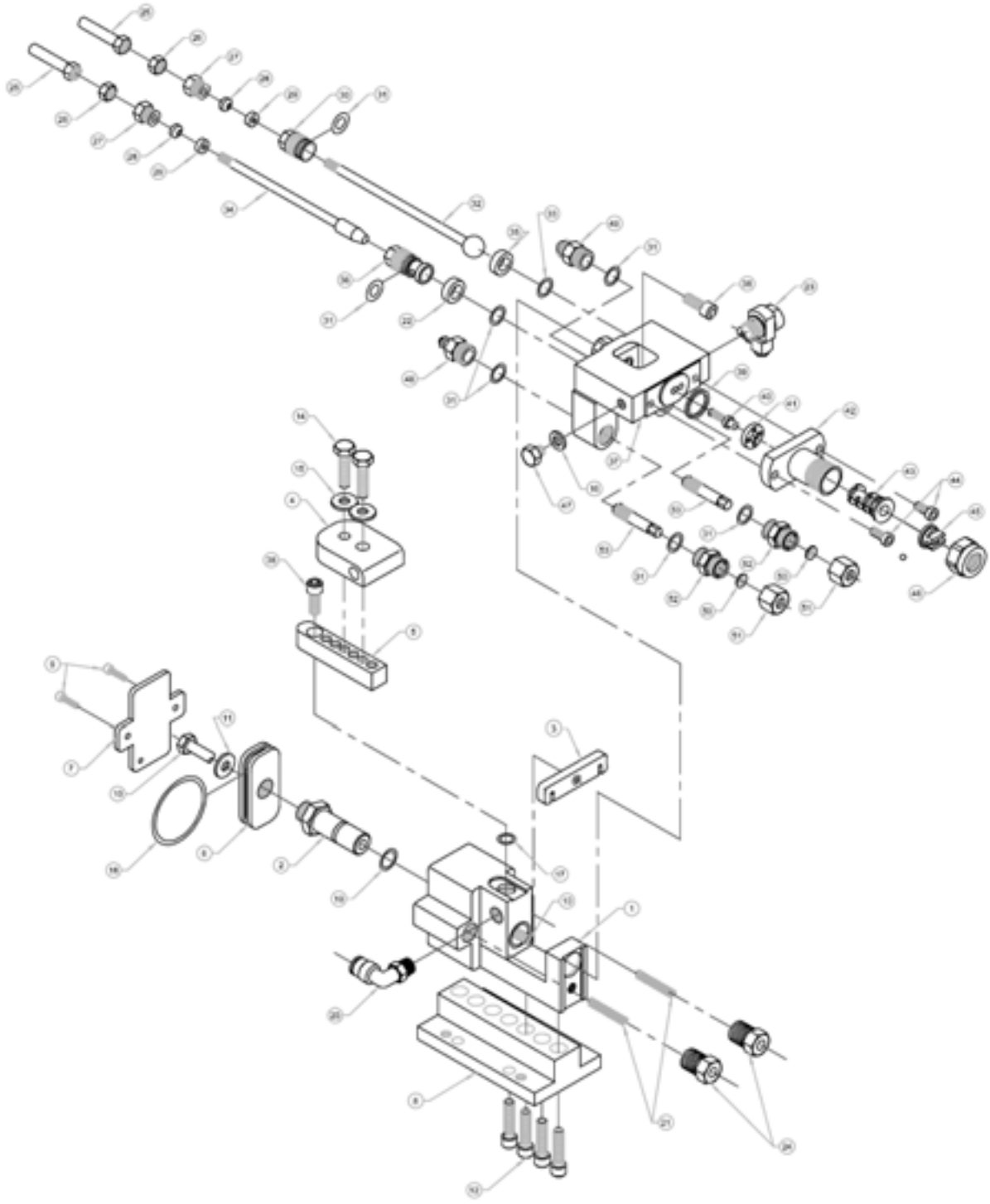
ITEM	PART #	DESCRIPTION	QTY
1	7701-6-18	ELBOW	1
2	54350-3	GUN HANDLE	1
3	00145	SCREW	1
4	54630-1	STUD	1
5	MAX-2040	TRIGGER	1
6	04039-1	SPRING	2
7	54000-1	RETAINER	2
8	53900-1	NEEDLE GUIDE	2
9	53800-1	JAM NUT	2
10	MG-1022	PACKING NUT	2
11*	MAX-2008	PACKING SEAL	2
12	MAX-2009	SEAL RETAINER	2
13	MAX-2013	SEAL HOUSING	1
14*	O-S-012	O-RING	7
15	MAX-2010-01	NEEDLE	1
16	MAX-2011-01	CARBIDE SEAT	1
17*	O-T-010	O-RING	3
18	DMX-3008-01	PISTON NEEDLE	1
20	DMX-3009-02	NEEDLE HOUSING (CAT.)	1
21	DMX-3001-01	GUN HEAD	1
22	F-CS-04C-12	CAP SCREW	1
23*	O-S-018	O-RING	1
24	5104-03-01	INJECTOR	1
25	5104-18-1	DIFFUSER	1
26	MAX-2017-T	MIXER HOUSING	1
27*	5107-27-3	TURBULENT MIXER	1
28	F-CS-1024-10	CAP SCREW	2
29	VFIT-602S	FIT NOZZLE	1
30	8704-4-1	NOZZLE CAP	1
31	53110-1	PLUG	1
32*	02441-1	SEAL	1
33	04070-1	SPRING	1
34	MG-2031	NEEDLE	1
35	54440-1	VALVE BODY	1
36*	O-S-104A	O-RING	1
37	54420-1	RETAINER	1
38	02883-8	PIN	1
39	56190-1	SCREW	1
40	04420-1	SPRING	1
41	F-HN-1024	NUT	1
42	56100-1	NUT	1
43	DMX-3006-01	CATALYST FITTING	1
44	DMX-3005	MATERIAL FITTING	1
45	5104-01-01	FLUSH VALVE	1
46	CPR-2012-02	CATALYST SEAT	1
47	F-MS-832-04	MACHINE SCREW	2
48	CPR-2060-01	MOUNT	1
49	DMX-3004	NEEDLE	2
50	DMX-3003	NEEDLE HOUSING	2
51	DMX-3002	PACKING NUT	2

SEAL KIT SOLD SEPARATELY:

*DMX-3000-SK SEAL KIT
KIT ALSO INCLUDES 5104-13-1 INJECTOR SEAL FOR PART 24. 5104-03-01

OPTIONAL EQUIPMENT:

MAX-2017-S	STATIC MIXER HOUSING
VPG-1002	DIFFUSER/GASKET (PLACE BETWEEN TIP AND HOUSING)
VPG-1003	STATIC MIXER
5104-07-01	BALL VALVE FLUSH
DMX-3009-01	CATALYST HOUSING/SEAT ASSEMBLY - INCLUDES ITEM 14. O-S-012 (QTY. 2), ITEM 20. DMX-3009-02, AND ITEM 46. CPR-2012-02
04040-1	HEAVY SPRING TO REPLACE 04039-1



MAGNUM VENUS PLASTECH

Automatic DuraMax Gun Assembly	DMX-3000-A

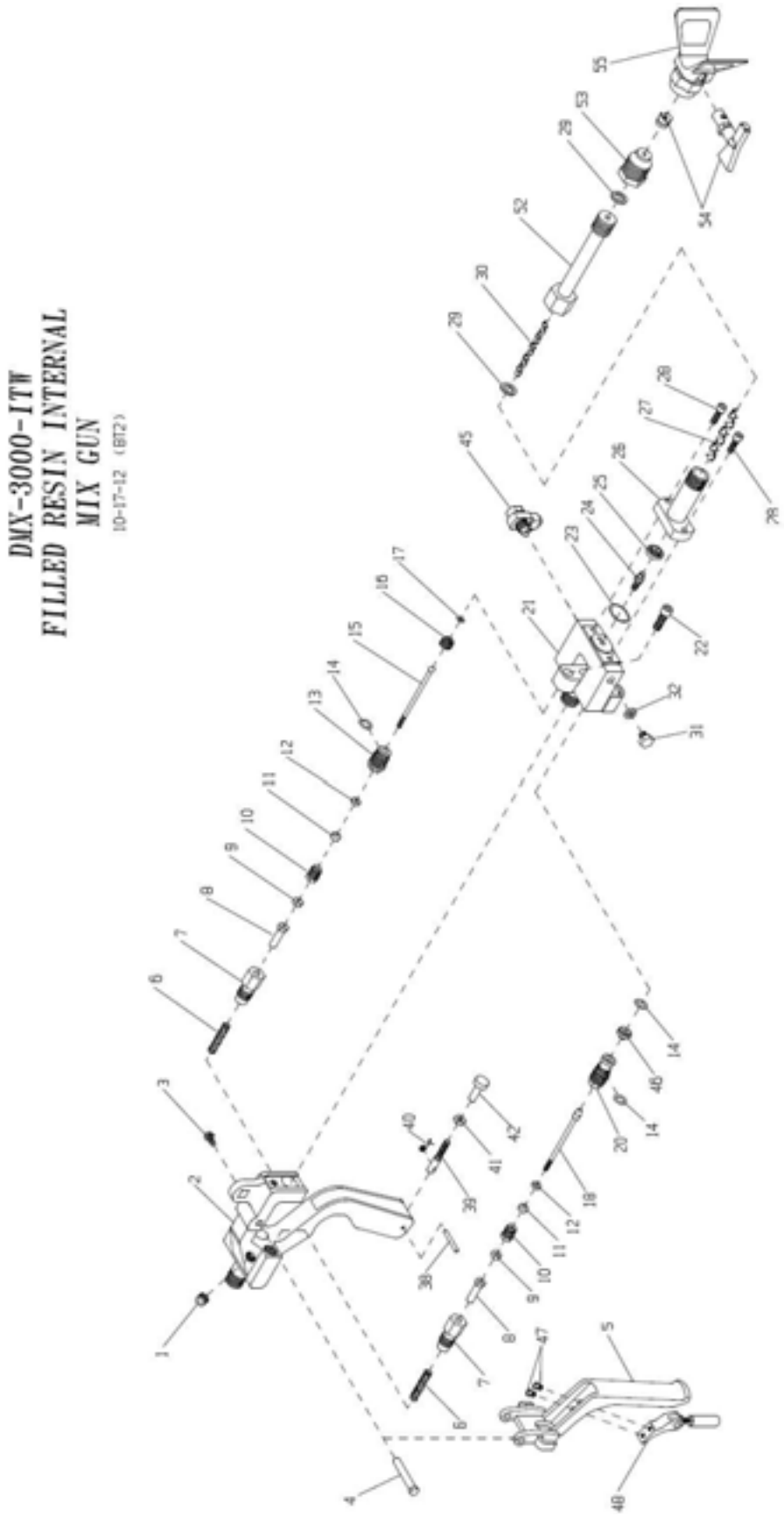
REV A - ITEMS 27, 28, 29 WAS QTY. OF 1 06/10/05 BT2
REV B - ITEM 37 WAS DMX-3001-01 02/17/09 BT2
REV C - DELETED ITEM 13, ITEM 38 WAS QTY. OF 1 03/16/10 BT2
REV D - ITEM 44 WAS F-CS-1025-10 06/19/12 BT2

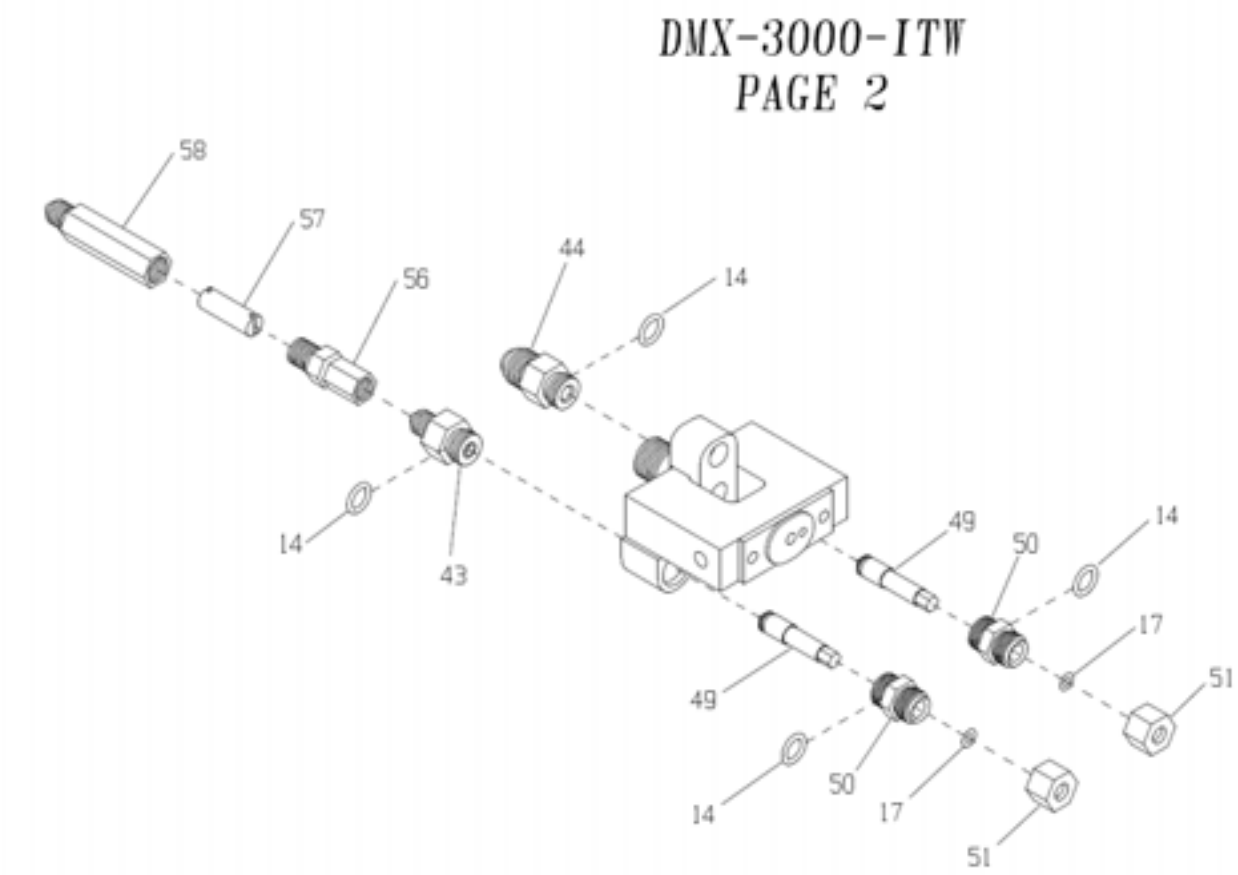
Automatic Duramax Gun Assy DMX-3000-A

PARTS LIST

ITEM	PART NO.	QTY	DESCRIPTION
1	MAX-2030-01	1	ACTUATOR BODY
2	MAX-2031	1	PISTON ROD
3	MAX-2032	1	NEEDLE PULL BAR
4	MAX-2033	1	CHOPPER MOUNT SWIVEL
5	MAX-2034	1	CHOPPER MOUNT RAIL
6	MAX-2035	1	PISTON
7	MAX-2036	1	BACK PLATE
8	MAX-2037	1	BASE PLATE
9	F-PH-632-06	2	MACHINE SCREW
10	F-HB-04C-40-GR5	1	HEX CAP SCREW
11	F-FW-04	1	FLAT WASHER
12	F-CS-04C-16	4	SOCKET HEAD CAP SCREW
14	F-HB-04C-16-GR5	2	HEX CAP SCREW
15	F-FW-04-SP	2	WASHER
16	02441-1	1	SEAL
17	O-B-011	1	O-RING
(*) 18	O-E-130	1	O-RING
(*) 19	O-E-013	1	O-RING
20	MPH-2539	1	SWIVEL ELBOW
21	04040-1	2	COMPRESSION SPRING
22	CPR-2012-02	1	CATALYST SEAL
23	5104-01-01	1	FLUSH VALVE ASSY
24	54000-1	2	SPRING RETAINER
25	53900-1	2	NEEDLE GUIDE
26	53800-1	2	HEX NUT
27	MG-1022	2	PACKING NUT
28	MAX-2008	2	PACKING SEAL
29	MAX-2009	2	SEAL RETAINER
30	MAX-2013	1	SEAL HOUSING
31	O-S-012	7	O-RING
32	MAX-2010-01	1	NEEDLE WITH CARBIDE
33	O-T-010	1	O-RING
34	DMX-3008-01	1	PISTON NEEDLE
35	MAX-2011-01	1	CARBIDE SEAT
36	DMX-3009-02	1	CATALYST NEEDLE HOUSING
37	DMX-3001-01-A	1	GUN HEAD
38	F-CS-04C-12	2	SOCKET HEAD CAP SCREW
39	O-S-018	1	O-RING
40	5104-03-01	1	INJECTOR ASSY
41	5104-18-1	1	DISTRIBUTION RING
42	MAX-2017-T	1	MIXER HOUSING
43	5107-27-3	1	TURBULENT MIXER
44	F-CS-1024-10	2	SOCKET HEAD CAP SCREW
45	VFIT-6025	1	FIT TIP
46	8704-4-1	1	NOZZLE CAP
47	53110-1	1	GUN HEAD PLUG
48	DMX-3006-01	1	CATALYST FITTING
49	DMX-3005	1	RESIN FITTING
50	O-T-010	2	O-RING
51	DMX-3002	2	PACKING NUT
52	DMX-3003	2	NEEDLE HOUSING
53	DMX-3004	2	NEEDLE

(*) APPLY A LIGHT COATING OF PARKER "SUPER O-LUBE" TO THESE ITEMS UPON ASSEMBLY


DMX-3000-ITW
FILLED RESIN INTERNAL
MIX GUN
10-17-12 (BT2)


DMX-3000-ITW
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DMX-3000-ITW
DURAMAX GUN
10-17-12
PARTS KEY

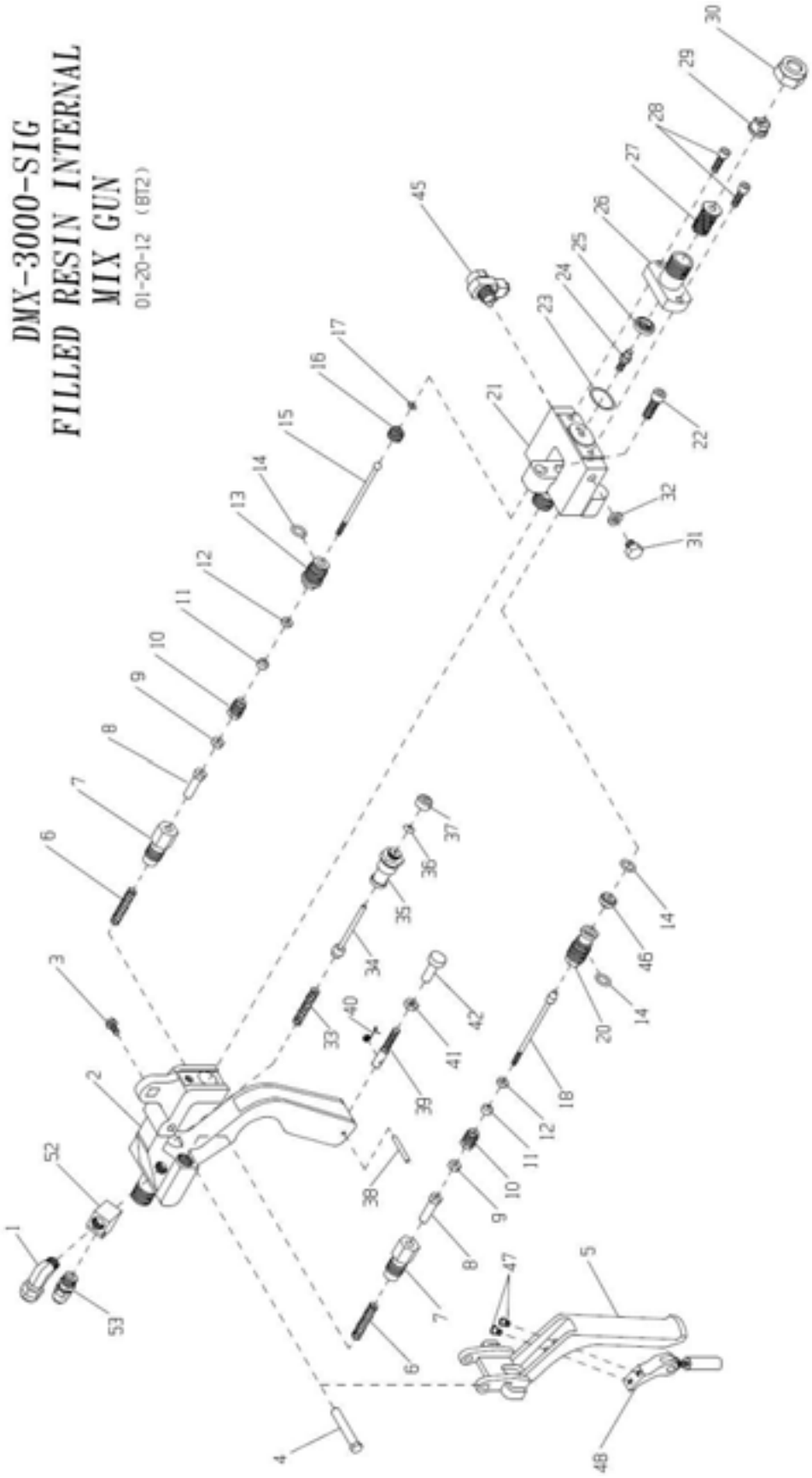
ITEM	PART #	DESCRIPTION	QTY
1	PF-AP-02	ALLEN PLUG	1
2	54350-3	GUN HANDLE	1
3	00145	SCREW	1
4	54630-1	STUD	1
5	MAX-2040	TRIGGER	1
6	04040-1	SPRING	2
7	54000-1	RETAINER	2
8	53900-1	NEEDLE GUIDE	2
9	53800-1	JAM NUT	2
10	MG-1022	PACKING NUT	2
11*	MAX-2008	PACKING SEAL	2
12	MAX-2009	SEAL RETAINER	2
13	MAX-2013	SEAL HOUSING	1
14*	O-S-012	O-RING	7
15	MAX-2010-01	NEEDLE	1
16	MAX-2011-01	CARBIDE SEAT	1
17*	O-T-010	O-RING	3
18	DMX-3008-01	PISTON NEEDLE	1
20	DMX-3009-02	NEEDLE HOUSING (CAT.)	1
21	DMX-3001-01	GUN HEAD	1
22	F-CS-04C-12	CAP SCREW	1
23*	O-S-018	O-RING	1
24	5104-03-01	INJECTOR	1
25	5104-18-1	DIFFUSER	1
26	MAX-2017-S	MIXER HOUSING	1
27*	VPG-1003	3/8" MIXER	1
28	F-CS-1024-10	CAP SCREW	2
29*	02149-1	SEAL	2
30*	MIX-1080	MIXER	1
31	53110-1	PLUG	1
32*	02441-1	SEAL	1
38	02883-8	PIN	1
39	56190-1	SCREW	1
40	04420-1	SPRING	1
41	F-HN-1024	NUT	1
42	56100-1	NUT	1
43	DMX-3006-01	CATALYST FITTING	1
44	DMX-3005	MATERIAL FITTING	1
45	5104-01-01	FLUSH VALVE	1
46	CPR-2012-02	CATALYST SEAT	1
47	F-MS-832-04	MACHINE SCREW	2
48	CPR-2060-01	MOUNT	1
49	DMX-3004	NEEDLE	2
50	DMX-3003	NEEDLE HOUSING	2
51	DMX-3002	PACKING NUT	2
52	50091-1	HOUSING	1
53	181085	ADAPTER	1
54	XHDXXX	TIP AND SEAL (XXX = TIP SIZE)	1
55	XHD001	GUARD	1
56	PF-SW-02-03J-SS	SWIVEL ADAPTER	1
57	TRU-1046-A	RESTRICTOR	1
58	TRU-1059	HOUSING	1

SEAL KIT SOLD SEPARATELY:

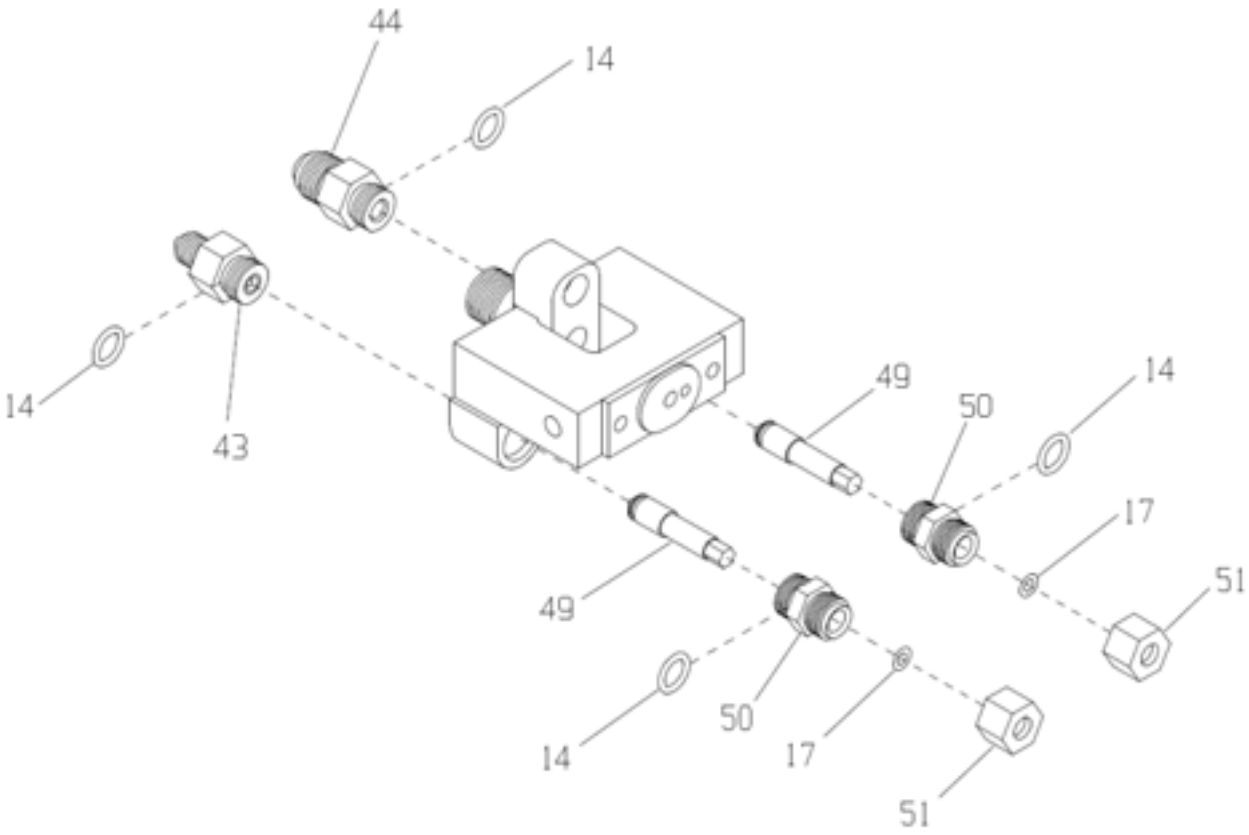
*DMX-3000-ITW-SK SEAL KIT
KIT ALSO INCLUDES 5104-13-1 INJECTOR SEAL FOR PART 24. 5104-03-01

OPTIONAL EQUIPMENT:

5104-07-01	BALL VALVE FLUSH
DMX-3009-01	CATALYST HOUSING/SEAT ASSEMBLY - INCLUDES: ITEM 14. O-S-012 (QTY. 2), ITEM 20. DMX-3009-02, AND ITEM 46. CPR-2012-02
50090-1	STATIC MIXER ASSEMBLY INCLUDES: ITEM 29. 02149-1 (QTY. 2) ITEM 30. 8705-1-1 ITEM 52. 50091-1
XHD01D	SEAL ONLY (THIS SEAL IS INCLUDED WITH XHDXXX TIP)


DMX-3000-SIG
FILLED RESIN INTERNAL
MIX GUN
01-20-12 (BT2)

DMX-3000-SIG
PAGE 2



DMX-3000-SIG
DURAMAX GUN
01-20-12
PARTS KEY

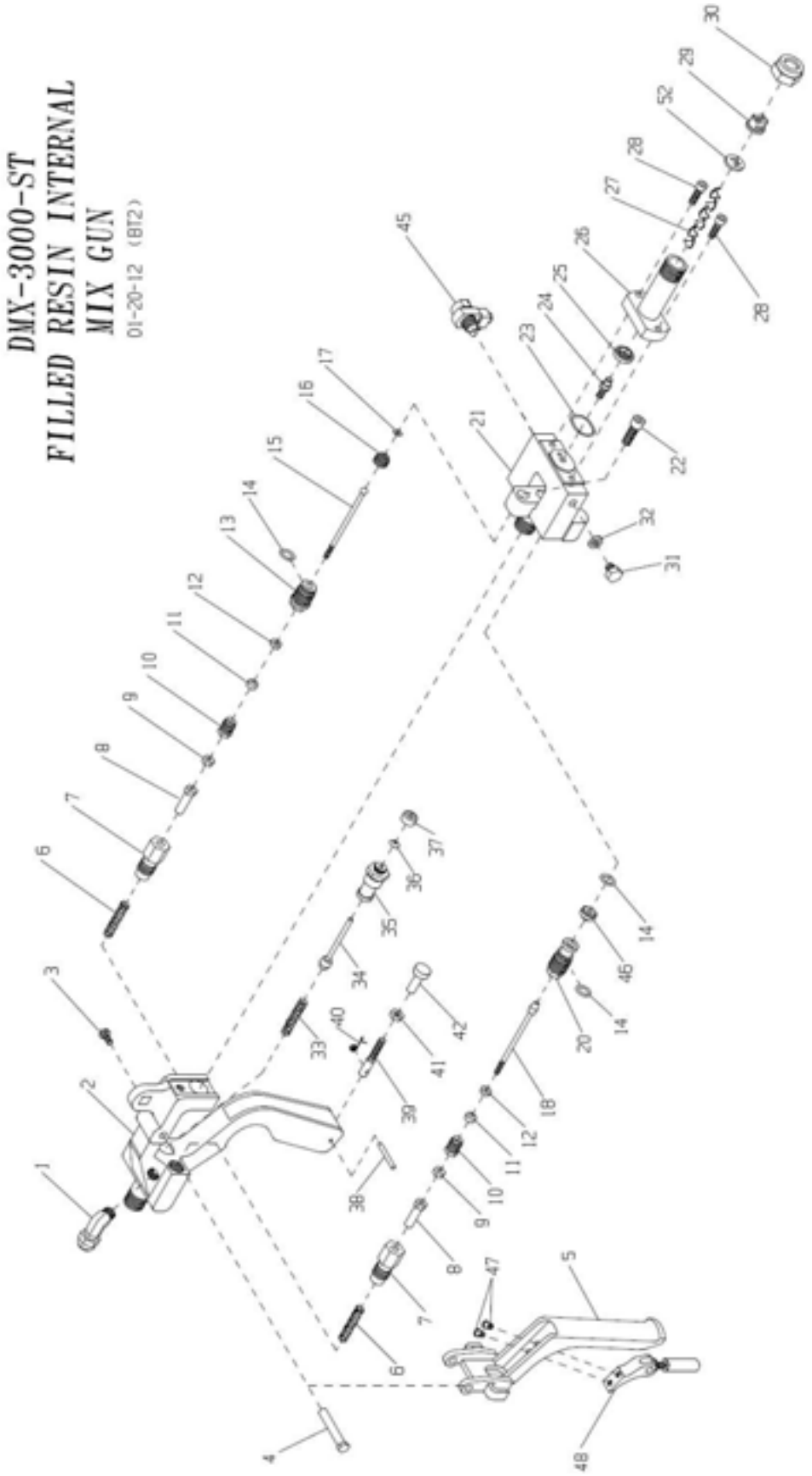
ITEM	PART #	DESCRIPTION	QTY
1	7701-6-18	ELBOW	1
2	54350-3	GUN HANDLE	1
3	00145	SCREW	1
4	54630-1	STUD	1
5	MAX-2040	TRIGGER	1
6	04039-1	SPRING	2
7	54000-1	RETAINER	2
8	53900-1	NEEDLE GUIDE	2
9	53800-1	JAM NUT	2
10	MG-1022	PACKING NUT	2
11*	MAX-2008	PACKING SEAL	2
12	MAX-2009	SEAL RETAINER	2
13	MAX-2013	SEAL HOUSING	1
14*	O-S-012	O-RING	7
15	MAX-2010-01	NEEDLE	1
16	MAX-2011-01	CARBIDE SEAT	1
17*	O-T-010	O-RING	3
18	DMX-3008-01	PISTON NEEDLE	1
20	DMX-3009-02	NEEDLE HOUSING (CAT.)	1
21	DMX-3001-01	GUN HEAD	1
22	F-CS-04C-12	CAP SCREW	1
23*	O-S-018	O-RING	1
24	5104-03-01	INJECTOR	1
25	5104-18-1	DIFFUSER	1
26	MAX-2017-T	MIXER HOUSING	1
27*	5107-27-3	TURBULENT MIXER	1
28	F-CS-1024-10	CAP SCREW	2
29	VFIT-6025	FIT NOZZLE	1
30	8704-4-1	NOZZLE CAP	1
31	53110-1	PLUG	1
32*	02441-1	SEAL	1
33	04070-1	SPRING	1
34	MG-2031	NEEDLE	1
35	54440-1	VALVE BODY	1
36*	O-S-104A	O-RING	1
37	54420-1	RETAINER	1
38	02883-8	PIN	1
39	56190-1	SCREW	1
40	04420-1	SPRING	1
41	F-HN-1024	NUT	1
42	56100-1	NUT	1
43	DMX-3006-01	CATALYST FITTING	1
44	DMX-3005	MATERIAL FITTING	1
45	5104-01-01	FLUSH VALVE	1
46	CPR-2012-02	CATALYST SEAT	1
47	F-MS-832-04	MACHINE SCREW	2
48	CPR-2060-01	MOUNT	1
49	DMX-3004	NEEDLE	2
50	DMX-3003	NEEDLE HOUSING	2
51	DMX-3002	PACKING NUT	2
52	PF-ST-02-BR	STREET TEE	1
53	7701-6-14	TUBE FITTING	1

SEAL KIT SOLD SEPARATELY:

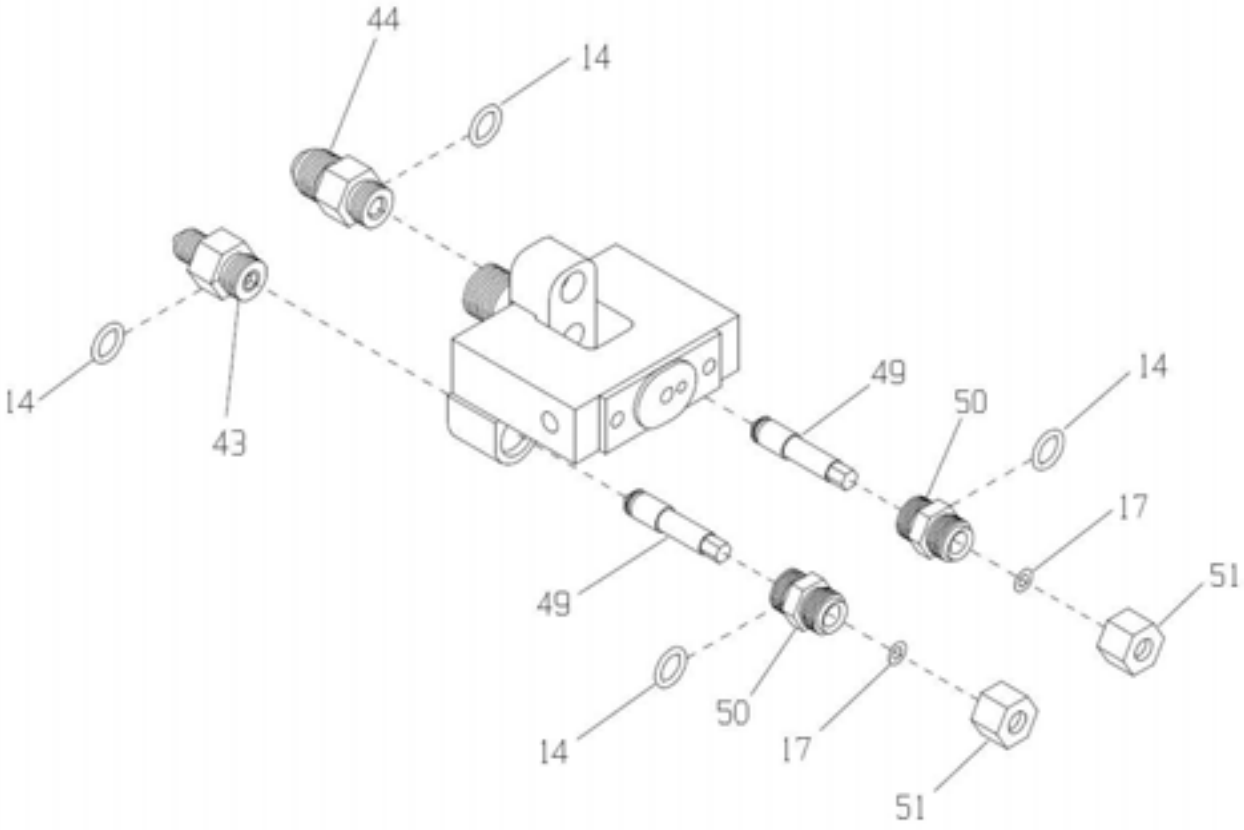
*DMX-3000-SK SEAL KIT
KIT ALSO INCLUDES 5104-13-1 INJECTOR SEAL FOR PART 24. 5104-03-01

OPTIONAL EQUIPMENT:

MAX-2017-S	STATIC MIXER HOUSING
VPG-1002	DIFFUSER/GASKET (PLACE BETWEEN TIP AND HOUSING)
VPG-1003	STATIC MIXER
5104-07-01	BALL VALVE FLUSH
DMX-3009-01	CATALYST HOUSING/SEAT ASSEMBLY - INCLUDES ITEM 14. O-S-012 (QTY. 2), ITEM 20. DMX-3009-02, AND ITEM 46. CPR-2012-02
04040-1	HEAVY SPRING TO REPLACE 04039-1


DMX-3000-ST
FILLED RESIN INTERNAL
MIX GUN
01-20-12 (BT2)

DMX-3000-ST
PAGE 2



DMX-3000-ST
DURAMAX GUN
01-20-12
PARTS KEY

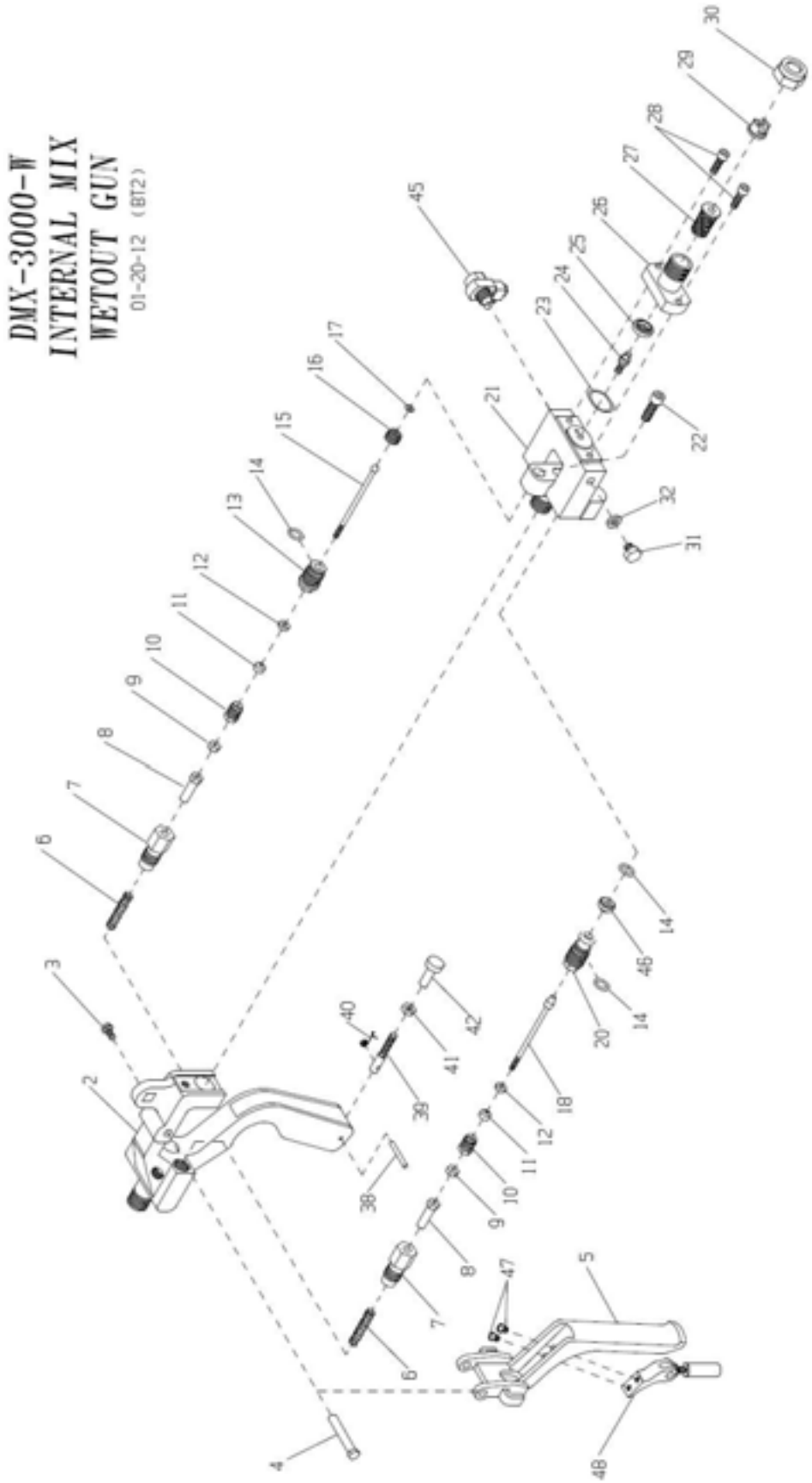
ITEM	PART #	DESCRIPTION	QTY
1	7701-6-18	ELBOW	1
2	54350-3	GUN HANDLE	1
3	00145	SCREW	1
4	54630-1	STUD	1
5	MAX-2040	TRIGGER	1
6	04039-1	SPRING	2
7	54000-1	RETAINER	2
8	53900-1	NEEDLE GUIDE	2
9	53800-1	JAM NUT	2
10	MG-1022	PACKING NUT	2
11*	MAX-2008	PACKING SEAL	2
12	MAX-2009	SEAL RETAINER	2
13	MAX-2013	SEAL HOUSING	1
14*	O-S-012	O-RING	7
15	MAX-2010-01	NEEDLE	1
16	MAX-2011-01	CARBIDE SEAT	1
17*	O-T-010	O-RING	3
18	DMX-3008-01	PISTON NEEDLE	1
20	DMX-3009-02	NEEDLE HOUSING (CAT.)	1
21	DMX-3001-01	GUN HEAD	1
22	F-CS-04C-12	CAP SCREW	1
23*	O-S-018	O-RING	1
24	5104-03-01	INJECTOR	1
25	5104-18-1	DIFFUSER	1
26	MAX-2017-S	MIXER HOUSING	1
27*	VPG-1003	TURBULENT MIXER	1
28	F-CS-1024-10	CAP SCREW	2
29	VFIT-6025	FIT NOZZLE	1
30	8704-4-1	NOZZLE CAP	1
31	53110-1	PLUG	1
32*	02441-1	SEAL	1
33	04070-1	SPRING	1
34	MG-2031	NEEDLE	1
35	54440-1	VALVE BODY	1
36*	O-S-104A	O-RING	1
37	54420-1	RETAINER	1
38	02883-8	PIN	1
39	56190-1	SCREW	1
40	04420-1	SPRING	1
41	F-HN-1024	NUT	1
42	56100-1	NUT	1
43	DMX-3006-01	CATALYST FITTING	1
44	DMX-3005	MATERIAL FITTING	1
45	5104-01-01	FLUSH VALVE	1
46	CPR-2012-02	CATALYST SEAT	1
47	F-MS-832-04	MACHINE SCREW	2
48	CPR-2060-01	MOUNT	1
49	DMX-3004	NEEDLE	2
50	DMX-3003	NEEDLE HOUSING	2
51	DMX-3002	PACKING NUT	2
52	VPG-1003	DIFFUSER/GASKET	1

SEAL KIT SOLD SEPARATELY:

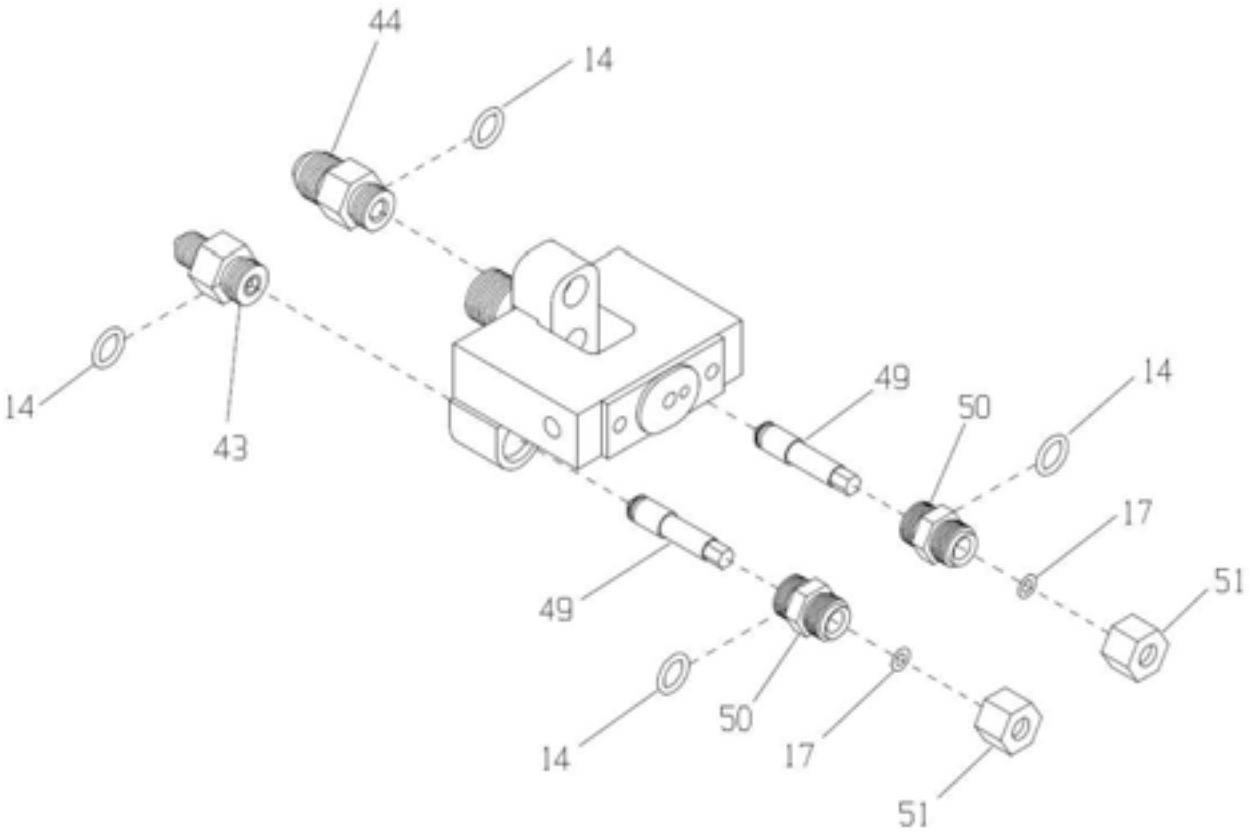
*DMX-3000-ST-SK SEAL KIT
KIT ALSO INCLUDES 5104-13-1 INJECTOR SEAL FOR PART 24. 5104-03-01

OPTIONAL EQUIPMENT:

5104-07-01	BALL VALVE FLUSH
DMX-3009-01	CATALYST HOUSING/SEAT ASSEMBLY - INCLUDES ITEM 14. O-S-012 (QTY. 2), ITEM 20. DMX-3009-02, AND ITEM 46. CPR-2012-02
04040-1	HEAVY SPRING TO REPLACE 04039-1


DMX-3000-W
INTERNAL MIX
WETOUT GUN
01-20-12 (BT2)

DMX-3000-W
PAGE 2



DMX-3000-W
WETOUT GUN
01-20-12
PARTS KEY

ITEM	PART #	DESCRIPTION	QTY
2	54350-3	GUN HANDLE	1
3	00145	SCREW	1
4	54630-1	STUD	1
5	MAX-2040	TRIGGER	1
6	04039-1	SPRING	2
7	54000-1	RETAINER	2
8	53900-1	NEEDLE GUIDE	2
9	53800-1	JAM NUT	2
10	MG-1022	PACKING NUT	2
11*	MAX-2008	PACKING SEAL	2
12	MAX-2009	SEAL RETAINER	2
13	MAX-2013	SEAL HOUSING	1
14*	O-S-012	O-RING	7
15	MAX-2010-01	NEEDLE	1
16	MAX-2011-01	CARBIDE SEAT	1
17*	O-T-010	O-RING	3
18	DMX-3008-01	PISTON NEEDLE	1
20	DMX-3009-02	NEEDLE HOUSING (CAT.)	1
21	DMX-3001-01	GUN HEAD	1
22	F-CS-04C-12	CAP SCREW	1
23*	O-S-018	O-RING	1
24	5104-03-01	INJECTOR	1
25	5104-18-1	DIFFUSER	1
26	MAX-2017-T	MIXER HOUSING	1
27*	5107-27-3	TURBULENT MIXER	1
28	F-CS-1024-10	CAP SCREW	2
29	VFIT-6025	FIT NOZZLE	1
30	8704-4-1	NOZZLE CAP	1
31	53110-1	PLUG	1
32*	02441-1	SEAL	1
38	02883-8	PIN	1
39	56190-1	SCREW	1
40	04420-1	SPRING	1
41	F-HN-1024	NUT	1
42	56100-1	NUT	1
43	DMX-3006-01	CATALYST FITTING	1
44	DMX-3005	MATERIAL FITTING	1
45	5104-01-01	FLUSH VALVE	1
46	CPR-2012-02	CATALYST SEAT	1
47	F-MS-832-04	MACHINE SCREW	2
48	CPR-2060-01	MOUNT	1
49	DMX-3004	NEEDLE	2
50	DMX-3003	NEEDLE HOUSING	2
51	DMX-3002	PACKING NUT	2

SEAL KIT SOLD SEPARATELY:

*DMX-3000-SK SEAL KIT
KIT ALSO INCLUDES 5104-13-1 INJECTOR SEAL FOR PART 24. 5104-03-01

OPTIONAL EQUIPMENT:

MAX-2017-S STATIC MIXER HOUSING

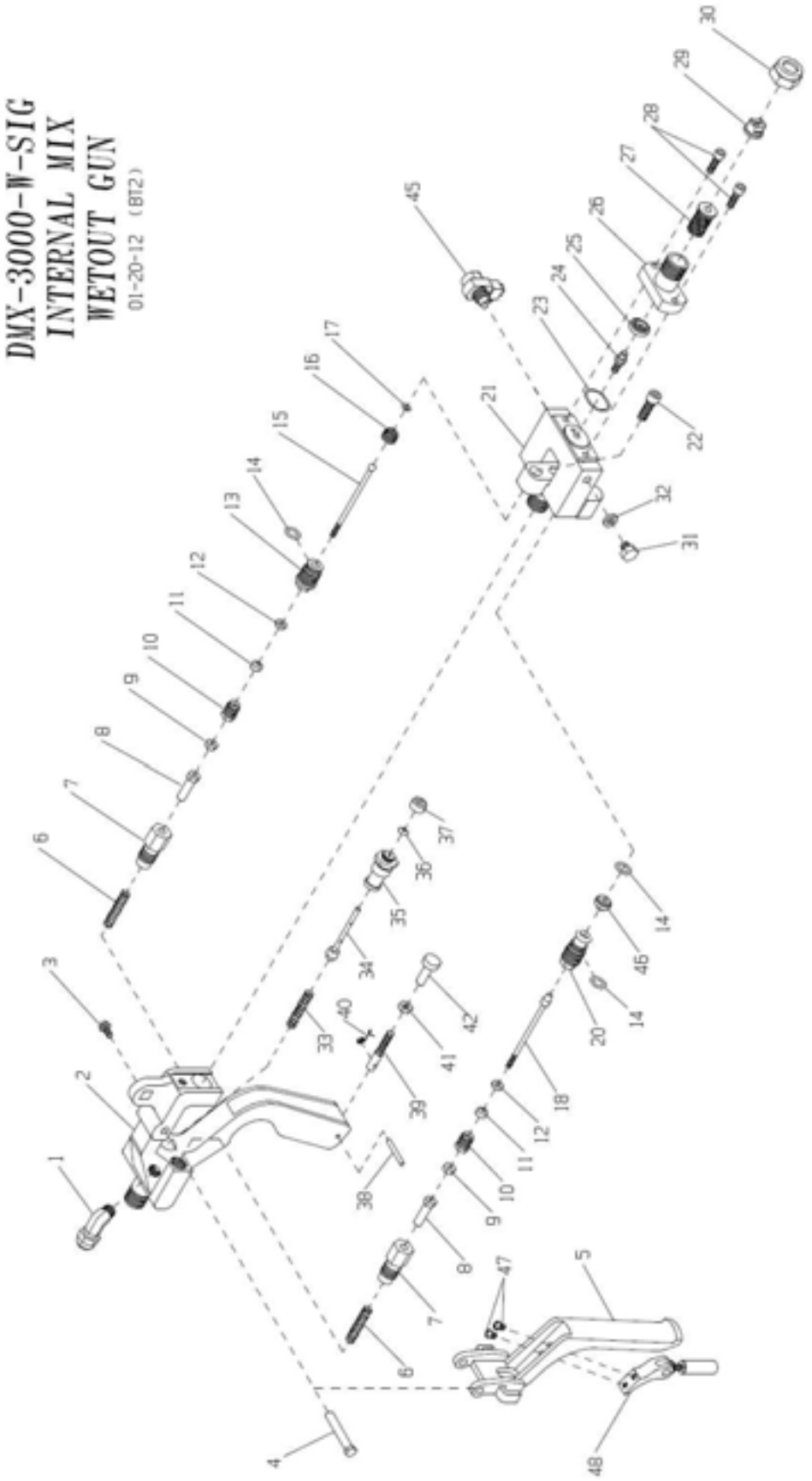
VPG-1002 DIFFUSER/GASKET (PLACE BETWEEN TIP AND HOUSING)

VPG-1003 STATIC MIXER

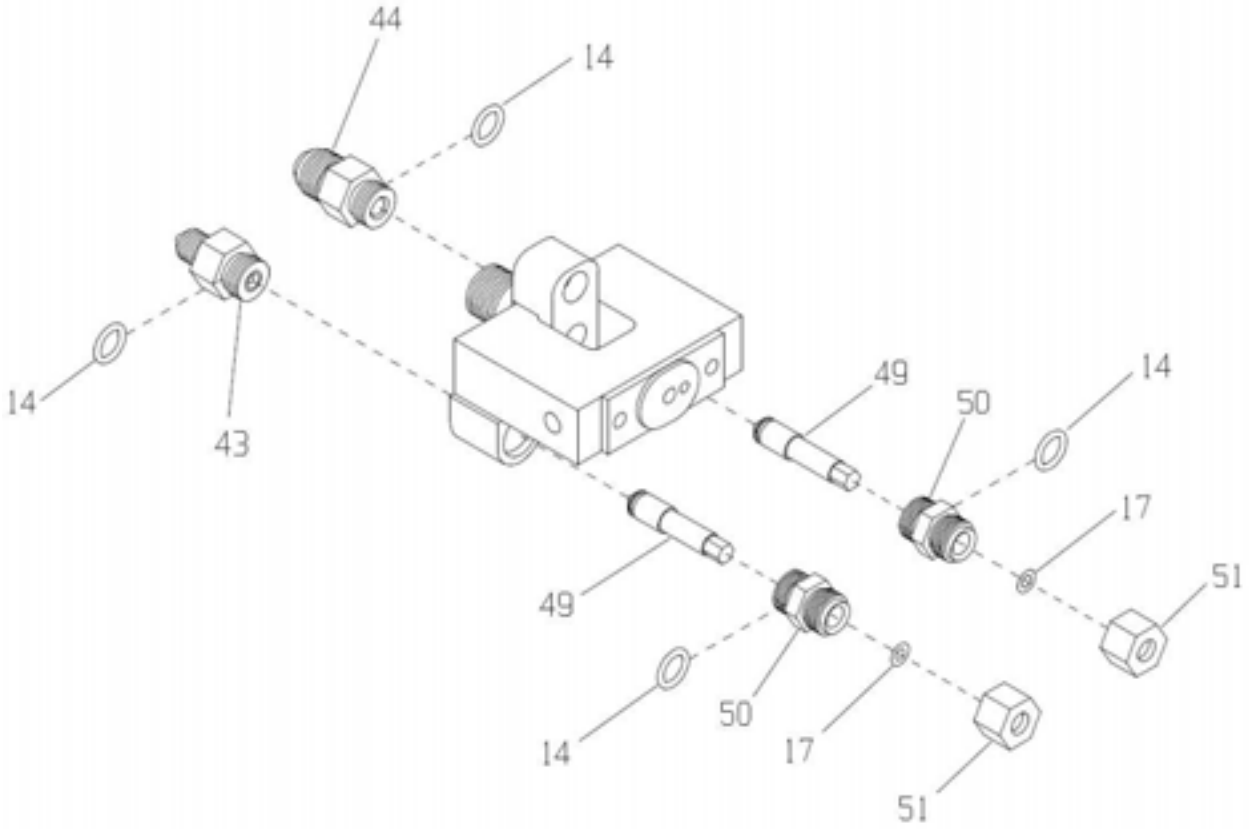
5104-07-01 BALL VALVE FLUSH

DMX-3009-01 CATALYST HOUSING/SEAT ASSEMBLY - INCLUDES ITEM 14. O-S-012 (QTY. 2), ITEM 20. DMX-3009-02, AND ITEM 46. CPR-2012-02

04040-1 HEAVY SPRING TO REPLACE 04039-1


DMX-3000-W-SIG
INTERNAL MIX
WETOUT GUN
01-20-12 (BT2)

DMX-3000-W-SIG
PAGE 2



DMX-3000-W-SIG
WETOUT GUN
01-20-12
PARTS KEY

ITEM	PART #	DESCRIPTION	QTY
1	MPH-2534	ELBOW	1
2	54350-3	GUN HANDLE	1
3	00145	SCREW	1
4	54630-1	STUD	1
5	MAX-2040	TRIGGER	1
6	04039-1	SPRING	2
7	54000-1	RETAINER	2
8	53900-1	NEEDLE GUIDE	2
9	53800-1	JAM NUT	2
10	MG-1022	PACKING NUT	2
11*	MAX-2008	PACKING SEAL	2
12	MAX-2009	SEAL RETAINER	2
13	MAX-2013	SEAL HOUSING	1
14*	O-S-012	O-RING	7
15	MAX-2010-01	NEEDLE	1
16	MAX-2011-01	CARBIDE SEAT	1
17*	O-T-010	O-RING	3
18	DMX-3008-01	PISTON NEEDLE	1
20	DMX-3009-02	NEEDLE HOUSING (CAT.)	1
21	DMX-3001-01	GUN HEAD	1
22	F-CS-04C-12	CAP SCREW	1
23*	O-S-018	O-RING	1
24	5104-03-01	INJECTOR	1
25	5104-18-1	DIFFUSER	1
26	MAX-2017-T	MIXER HOUSING	1
27*	5107-27-3	TURBULENT MIXER	1
28	F-CS-1024-10	CAP SCREW	2
29	VFIT-6025	FIT NOZZLE	1
30	8704-4-1	NOZZLE CAP	1
31	53110-1	PLUG	1
32*	02441-1	SEAL	1
33	04070-1	SPRING	1
34	54501-1	NEEDLE	1
35	54440-1	VALVE BODY	1
36*	O-S-104A	O-RING	1
37	54420-1	RETAINER	1
38	02883-8	PIN	1
39	56190-1	SCREW	1
40	04420-1	SPRING	1
41	F-HN-1024	NUT	1
42	56100-1	NUT	1
43	DMX-3006-01	CATALYST FITTING	1
44	DMX-3005	MATERIAL FITTING	1
45	5104-01-01	FLUSH VALVE	1
46	CPR-2012-02	CATALYST SEAT	1
47	F-MS-832-04	MACHINE SCREW	2
48	CPR-2060-01	MOUNT	1
49	DMX-3004	NEEDLE	2

ITEM	PART #	DESCRIPTION	QTY
50	DMX-3003	NEEDLE HOUSING	2
51	DMX-3002	PACKING NUT	2

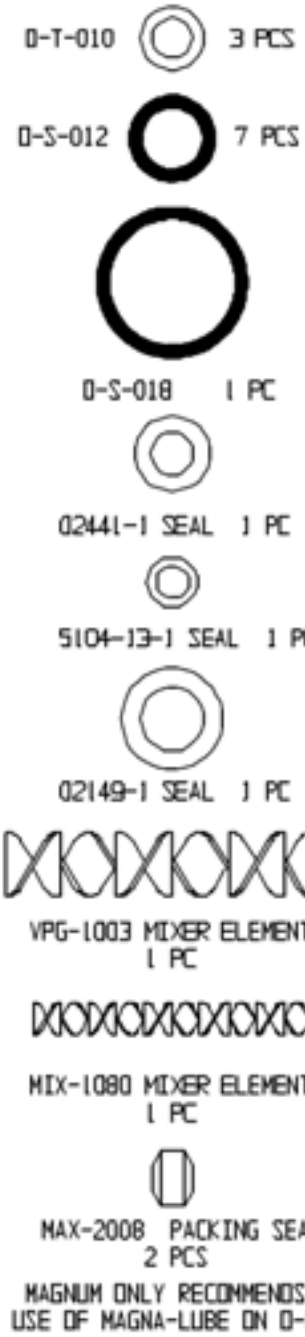
SEAL KIT SOLD SEPARATELY:

*DMX-3000-SK SEAL KIT
KIT ALSO INCLUDES 5104-13-1 INJECTOR SEAL FOR PART 24. 5104-03-01

OPTIONAL EQUIPMENT:

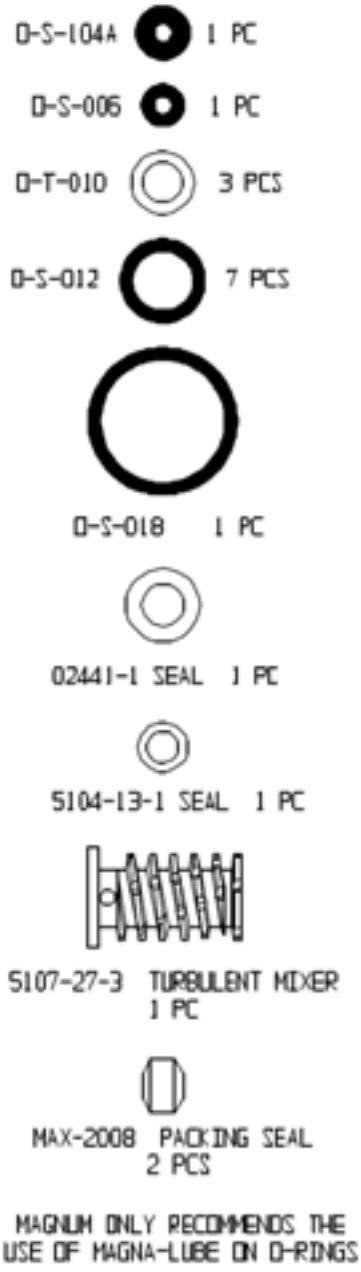
MAX-2017-S	STATIC MIXER HOUSING
VPG-1002	DIFFUSER/GASKET (PLACE BETWEEN TIP AND HOUSING)
VPG-1003	STATIC MIXER
5104-07-01	BALL VALVE FLUSH
DMX-3009-01	CATALYST HOUSING/SEAT ASSEMBLY - INCLUDES ITEM 14. O-S-012 (QTY. 2), ITEM 20. DMX-3009-02, AND ITEM 46. CPR-2012-02
04040-1	HEAVY SPRING TO REPLACE 04039-1

DMX-3000-ITW-SK



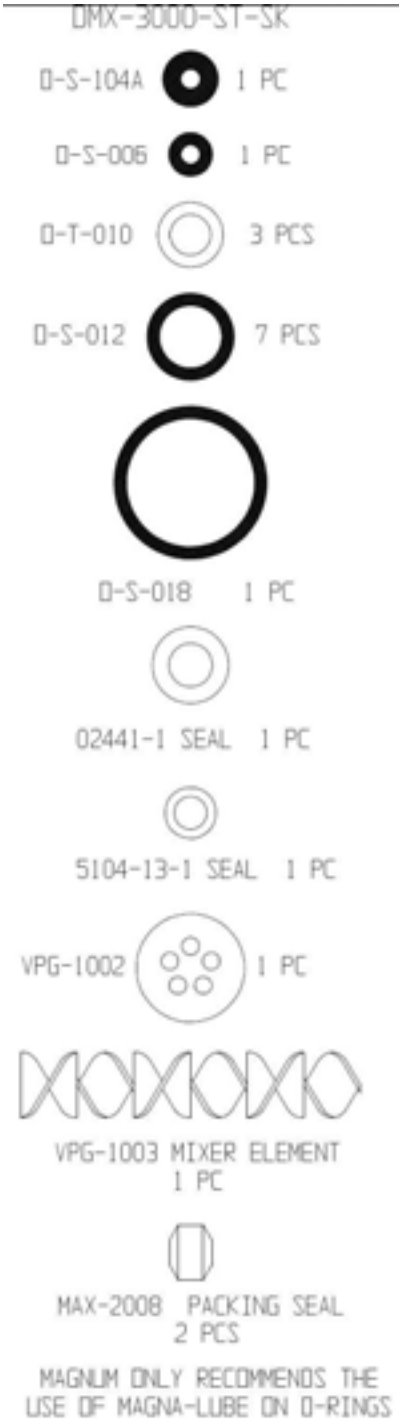
MAGNUM ONLY RECOMMENDS THE USE OF MAGNA-LUBE ON O-RINGS

DMX-3000-SK



MAGNUM ONLY RECOMMENDS THE
USE OF MAGNA-LUBE ON O-RINGS

DMX-3000-ST-SK



MAGNUM ONLY RECOMMENDS THE
USE OF MAGNA-LUBE ON O-RINGS

Revision Information:

Rev. 12/2012 Add this revision information section. We updated the parts drawings in the manual and the manual format. Added the Terms & Conditions section and updated the Safety & Warning information.

MAGNUM VENUS PLASTECH

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Assemblies Covered in this Manual:

DMX-3000	DURAMAX GUN ASSEMBLY
DMX-3000-A	AUTO DURAMAX GUN ASSEMBLY
DMX-3000-ITW	DURAMAX GUN ASSEMBLY – REVERSALBE TIP
DMX-3000-SIG	DURAMAX GUN ASSEMBLY – WITH AIR SIGNAL
DMX-3000-ST	DURAMAX GUN ASSEMBLY – FIT MIX CHAMBER
DMX-3000-W	DURAMAX GUN ASSEMBLY – WETOUT GUN
DMX-3000-W-SIG	DURAMAX GUN ASSEMBLY – WETOUT & AIR SIGNAL