

Auto Formula

GC-1407H
ENG

***Low emission internal-mix dispense gun for use with polyester resin and gel coat.
For professional use only.***

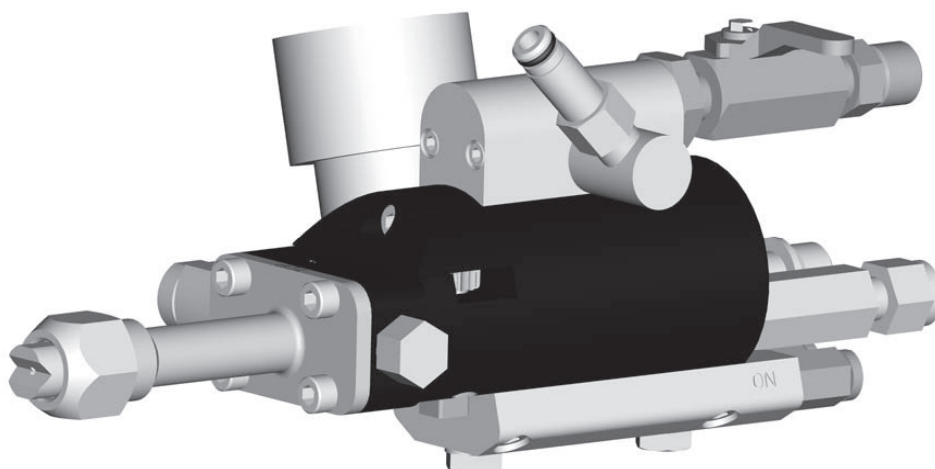
Maximum fluid working pressure:
2000 psi. (14 MPa, 138 bar)

Maximum air pressure:
100 psi. (0.7 MPa, 7 bar)



Important Safety Instructions

Read all warnings and instructions in
this manual. Save these instructions.



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Warnings

The following warnings are for the setup, use, grounding, maintenance, and repair of this equipment. The exclamation point symbol alerts you to a general warning and the hazard symbol refers to procedure-specific risk. Refer back to these warnings. Additional, product-specific warnings may be found throughout the body of this manual where applicable.

- See Important Safety Information - MEKP, Polyester Resins and Gel-Coats and Spraying and Lamination Operations section of this manual.

 WARNING	
	<p>FIRE AND EXPLOSION HAZARD</p> <p>Flammable fumes, such as solvent and paint fumes, in work area can ignite or explode. To help prevent fire and explosion:</p> <ul style="list-style-type: none"> • Use equipment only in well ventilated area. • Eliminate all ignition sources; such as pilot lights, cigarettes, portable electric lamps, and plastic drop cloths (potential static arc). • Keep work area free of debris, including solvent, rags and gasoline. • Do not plug or unplug power cords, or turn power or light switches on or off when flammable fumes are present. • Ground all equipment in the work area. See Grounding instructions. • Use only grounded hoses. • Hold gun firmly to side of grounded pail when triggering into pail. • If there is static sparking or you feel a shock, stop operation immediately. Do not use equipment until you identify and correct the problem. • Keep a working fire extinguisher in the work area.
	<p>PERSONAL PROTECTIVE EQUIPMENT</p> <p>You must wear appropriate protective equipment when operating, servicing, or when in the operating area of the equipment to help protect you from serious injury, including eye injury, inhalation of toxic fumes, burns, and hearing loss. This equipment includes but is not limited to:</p> <ul style="list-style-type: none"> • Protective eyewear • Clothing and respirator as recommended by the fluid and solvent manufacturer • Gloves • Hearing protection
	<p>TOXIC FLUID OR FUMES HAZARD</p> <p>Toxic fluids or fumes can cause serious injury or death if splashed in the eyes or on skin, inhaled, or swallowed.</p> <ul style="list-style-type: none"> • Read MSDS's to know the specific hazards of the fluids you are using. • Store hazardous fluid in approved containers, and dispose of it according to applicable guidelines. • Always wear impervious gloves when spraying or cleaning equipment.

Warnings

 WARNING	
	<p>SKIN INJECTION HAZARD</p> <p>High-pressure fluid from gun, hose leaks, or ruptured components will pierce skin. This may look like just a cut, but it is a serious injury that can result in amputation. Get immediate surgical treatment.</p> <ul style="list-style-type: none"> • Do not point gun at anyone or at any part of the body. • Do not put your hand over the dispense outlet. • Do not stop or deflect leaks with your hand, body, glove, or rag. • Engage trigger lock when not spraying. • Follow Pressure Relief Procedure in this manual, when you stop spraying and before cleaning, checking, or servicing equipment.
	<p>MOVING PARTS HAZARD</p> <p>Moving parts can pinch or amputate fingers and other body parts.</p> <ul style="list-style-type: none"> • Keep clear of moving parts. • Do not operate equipment with protective guards or covers removed. • Pressurized equipment can start without warning. Before checking, moving, or servicing equipment, follow the Pressure Relief Procedure in this manual. Disconnect power or air supply.
	<p>EQUIPMENT MISUSE HAZARD</p> <p>Misuse can cause death or serious injury.</p> <ul style="list-style-type: none"> • Do not operate the unit when fatigued or under the influence of drugs or alcohol. • Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See Technical Data in all equipment manuals. • Use fluids and solvents that are compatible with equipment wetted parts. See Technical Data in all equipment manuals. Read fluid and solvent manufacturer's warnings. For complete information about your material, request MSDS forms from distributor or retailer. • Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only. • Do not alter or modify equipment. • Use equipment only for its intended purpose. Call your distributor for information. • Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces. • Do not kink or over bend hoses or use hoses to pull equipment. • Keep children and animals away from work area. • Comply with all applicable safety regulations.
	<p>PRESSURIZED ALUMINUM PARTS HAZARD</p> <p>Do not use 1,1,1-trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents in pressurized aluminum equipment. Such use can cause serious chemical reaction and equipment rupture, and result in death, serious injury, and property damage.</p>

Important Safety Information

Methyl Ethyl Ketone Peroxide (MEKP)

MEKP is among the more hazardous materials found in commercial channels. Proper 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 and gel-coats also produces the hazards which require great care and caution in its storage, transportation, handling, processing and disposal.

Workers must be thoroughly informed of the hazards that may result from improper handling of MEKP, especially in regards to contamination and heat. They must 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.



MEKP is flammable and potentially explosive, as well as potentially damaging to the eyes and skin.

Read material manufacturer's warnings and material MSDS to know specific hazards and precautions related to MEKP.

Contaminated MEKP can become explosive. Prevent contamination of MEKP with other materials, which includes, but is not limited to polyester overspray, polymerization accelerators and promoters, and non-stainless metals. Even small amounts of contaminants can make MEKP explosive. This reaction may start slowly, and gradually build-up heat, which can accelerate until fire or an explosion result. This process can take from seconds to days.

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), which can cause fire or explosion.

Spills should be promptly removed, so no residues remain. Spillage can heat up to the point of self-ignition. Dispose in accordance with manufacture's recommendation.

Store MEKP in a cool, dry and well-ventilated area in the original containers away from direct sunlight and away from other chemicals. It is strongly recommended that the storage temperature remain below 86° F (30° C). Heat will increase the potential for explosive decomposition. Refer to NFPA 432. Keep MEKP away from heat, sparks and open flames.

Current catalysts are premixed and do not require any diluents. GlasCraft strongly recommends that diluents not be used. Diluents add to the possibility of contaminants entering the catalyst system. Never dilute MEKP with acetone or any solvent since this can produce an extremely shock-sensitive compound which can explode.

Use only original equipment or equivalent parts from GlasCraft in the catalyst system (i.e.: hoses, fittings, etc.) because a hazardous chemical reaction may result between substituted parts and MEKP.

To prevent contact with MEKP, appropriate personal protective equipment, including chemically impermeable gloves, boots, aprons and goggles are required for everyone in the work area.

Polyester Resins and Gel-Coats



Spraying materials containing polyester resin and gel-coats creates potentially harmful mist, vapors and atomized particulates. Prevent inhalation by providing sufficient ventilation and the use of respirators in the work area.

Read the material manufacturer's warnings and material MSDS to know specific hazards and precautions related to polyester resins and gel-coats.

To prevent contact with polyester resins and gel-coats, appropriate personal protective equipment, including chemically impermeable gloves, boots, aprons and goggles are required for everyone in the work area.

Spraying and Lamination Operations



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.

If cleaning solvents are required, read material manufacture's warnings and material MSDS to know specific hazards and precautions. (GlasCraft recommends that clean-up solvents be nonflammable.)



GlasCraft recommends that you consult OSHA Sections 1910.94, 1910.106, 1910.107 and NFPA No. 33, Chapter 16,17, and NFPA No. 91 for further guidance.

Grounding



This equipment needs to be grounded.

Ground the dispense gun through connection to a GlasCraft approved grounded fluid supply hose.

Check your local electrical code and related manuals for detailed grounding instructions of all equipment in the work area.

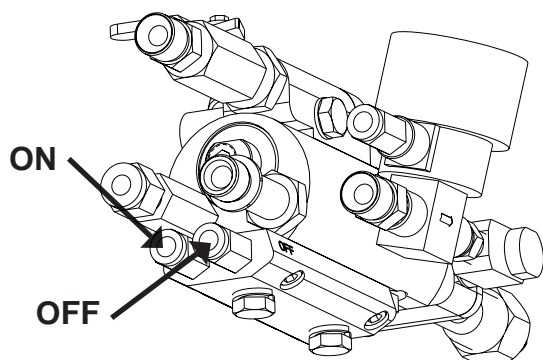


A grounding wire and clamp are provided, assembly p/n 17440-00 with all FRP equipment.

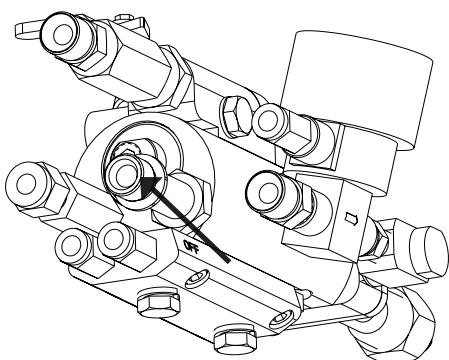
Set-Up

Hose Attachment

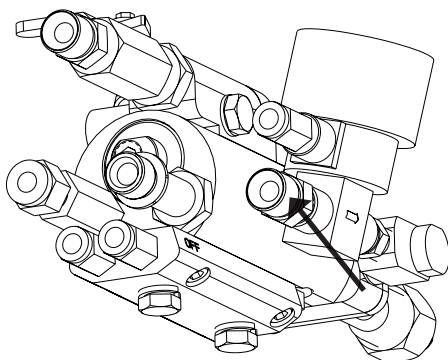
1. a. Attach the (clear) 1/4 in. tubing for trigger air ON to the trigger air ON inlet fitting on the back of the gun.
b. Attach the (clear) 1/4 in. tubing for trigger air OFF to the trigger air OFF inlet fitting on the back of the gun.



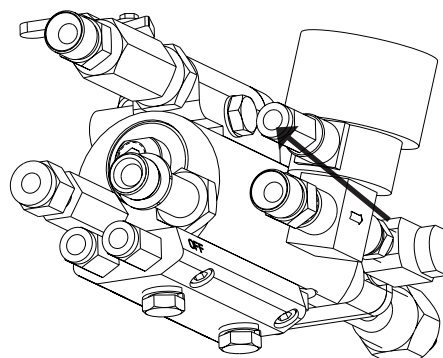
2. Attach the (black p/n 21694-25) material hose to the material inlet fitting on the back of the gun.



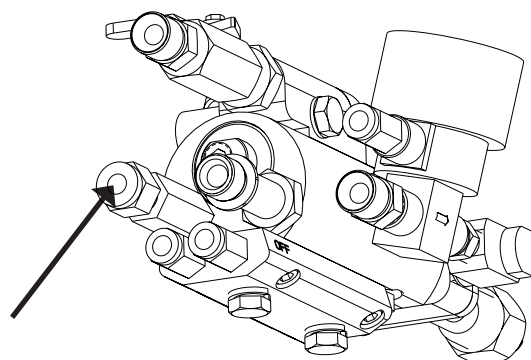
3. Attach the (yellow p/n 236) solvent line to the solvent inlet fitting on the back of the gun.



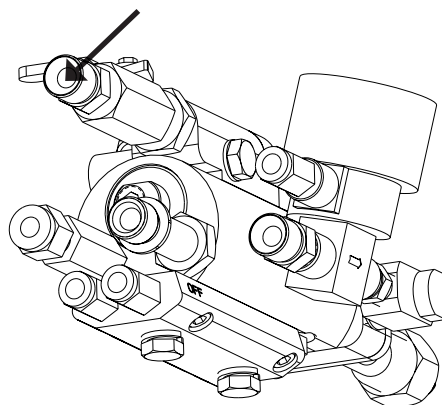
4. Attach the (clear) solvent air tubing to the solvent air inlet fitting on the back of the gun.



5. Attach the (stainless steel p/n 20190-00) catalyst hose to the catalyst inlet fitting on the back of the gun.



6. If the optional fiberglass roving chopper is being used, attach the "red" chopper air line to the chopper air inlet fitting on the back of the gun.



Parts

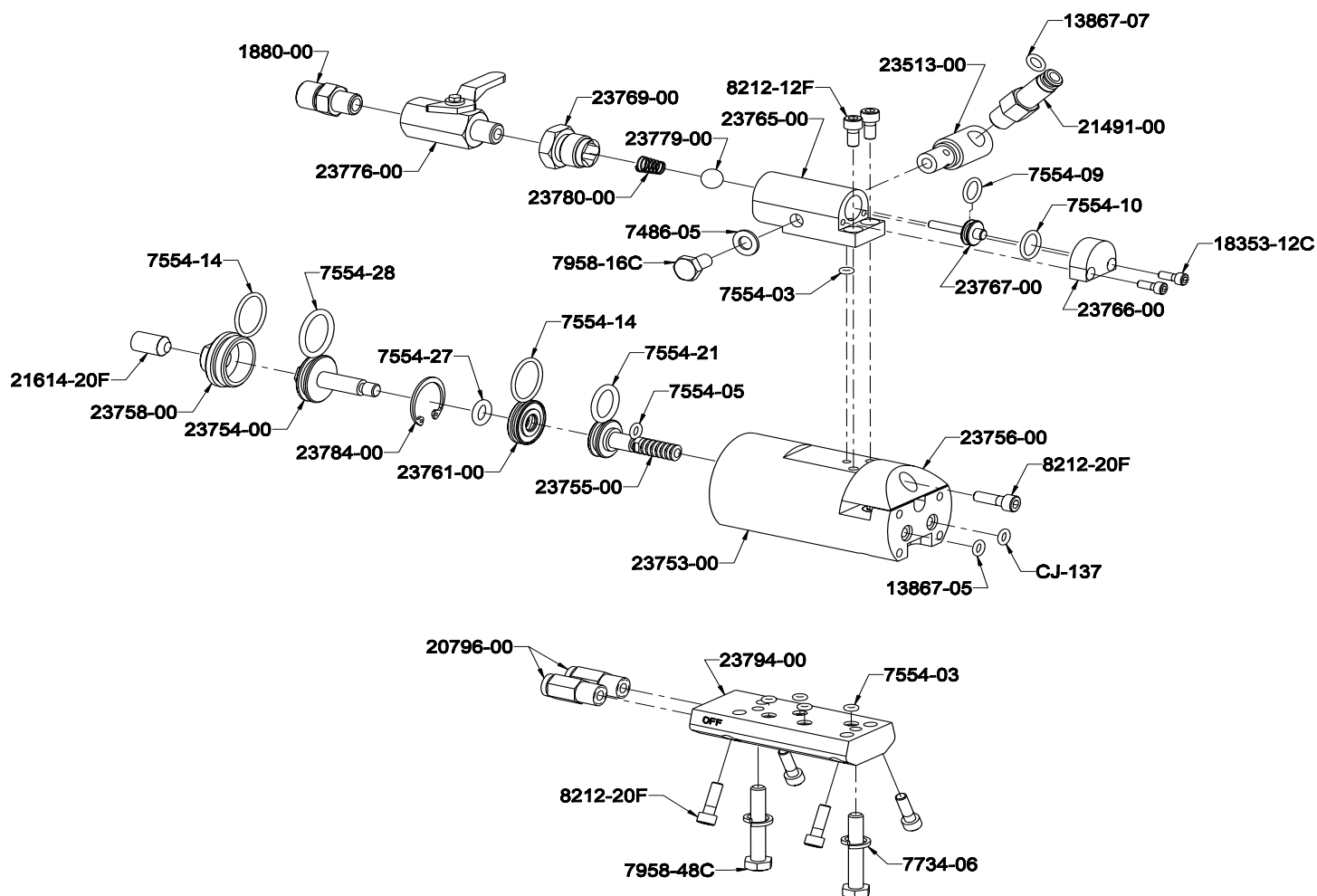
Auto Formula Dispense Gun 23750-02

Part Number	Description
23750-02	Auto Formula Dispense Gun
J5	Standard Spray Tip
GC-1407	User Manual

Repair Kits	
Part Number	Description
23792-00	GUN AIR KIT
23793-00	GUN SEAL KIT
23732-00	GUN FLUID VALVE KIT

Assembly Drawings

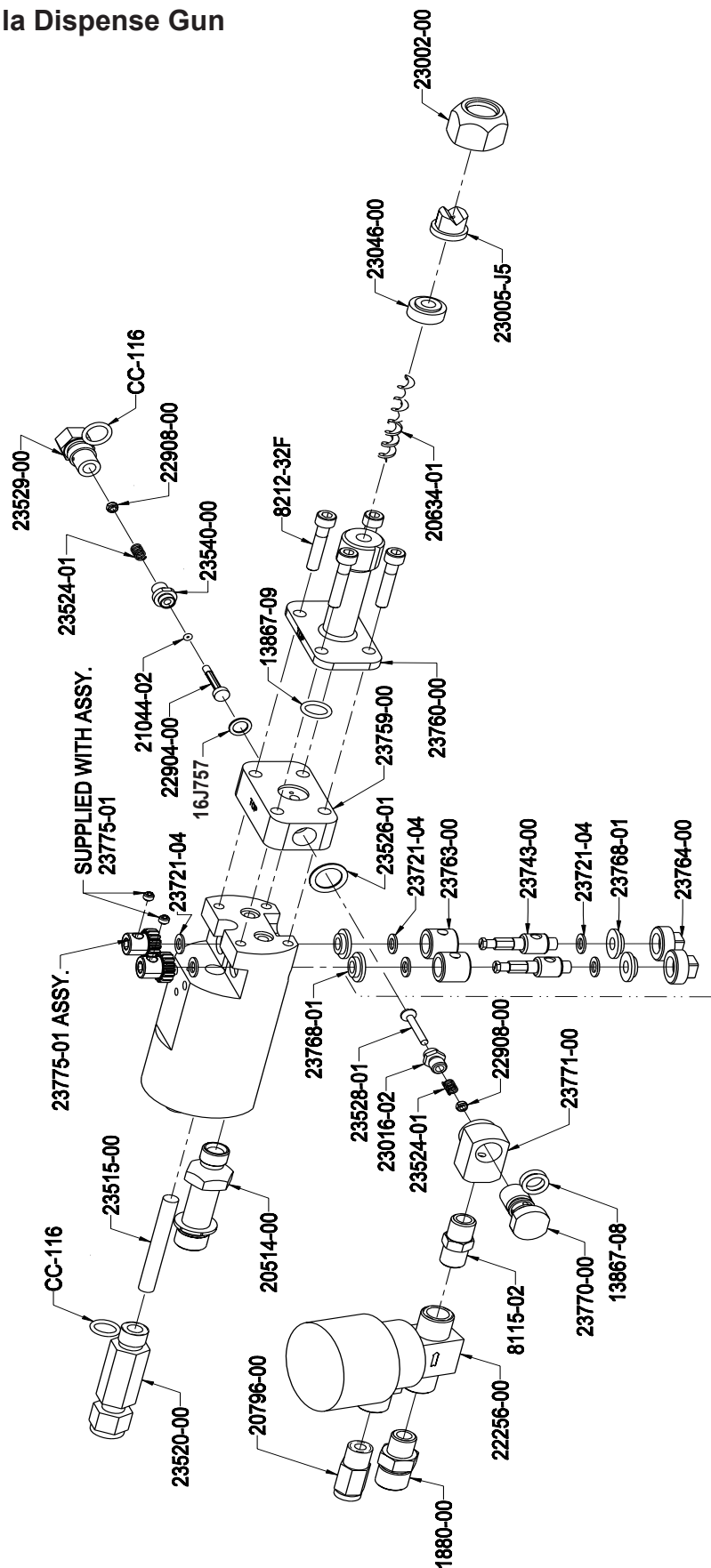
23750-02 Auto Formula Dispense Gun



REVISION E

Assembly Drawings

23750-02 Auto Formula Dispense Gun



REVISION E

Assembly Drawings

23750-02 Auto Formula Dispense Gun

Part Number	Description	Qty.
13867-05	O-RING	1
13867-07	O-RING	1
13867-08	O-RING	2
13867-09	O-RING	1
15845-01	BALL DRIVER	1
18353-12C	SCREW	2
1880-00	FITTING	2
20514-00	FITTING	1
20634-01	MIXING ELEMENT	1
20796-00	FITTING	3
21044-02	O-RING	1
21491-00	PIVOT TUBE	1
21614-20F	SCREW	1
22256-00	TOGGLE VALVE	1
22904-00	CHECK VALVE STEM	1
22908-00	NUT	2
23002-00	RETAINING NUT	1
23016-02	CHECK VALVE BODY	1
23046-00	SPRAY TIP SPACER	1
23513-00	ROTATING MOUNT	1
23515-00	CATALYST RESTRICTOR	1
23520-00	FITTING	1
23524-01	SPRING	2
23526-01	WASHER	1
23528-01	CHECK VALVE STEM	1
23529-00	CHECK VALVE HOUSING	1
23540-00	CHECK VALVE BODY	1
23721-04	WASHER	6
23743-00	FLUID VALVE	2
23753-00	GUN BODY	1
23754-00	AIR PISTON	1
23755-00	AIR PISTON	1
23756-00	GEAR COVER	1
23758-00	REAR CAP	1
23759-00	MIXING HEAD	1
23760-00	FRONT MIXER	1
23761-00	CYLINDER SPACER	1

Part Number	Description	Qty.
23763-00	PACKING DISK	2
23764-00	PACKING NUT	2
23765-00	CHOPPER MOUNT	1
23766-00	CHOPPER FRONT MOUNT	1
23767-00	CHOPPER PISTON	1
23768-01	BEARING	4
23769-00	ADAPTER	1
23770-00	SOLVENT INSERT	1
23771-00	SOLVENT SLEEVE ADAPTER	1
23775-01	GEAR	2
23776-00	BALL VALVE	1
23779-00	BALL	1
23780-00	SPRING	1
23782-00	SEAL KIT	1
23783-00	AIR KIT	1
23784-00	RETAINING RING	1
23794-00	ROBOT MOUNT	1
7486-05	WASHER	1
7554-03	O-RING	5
7554-05	O-RING	1
7554-09	O-RING	1
7554-10	O-RING	1
7554-14	O-RING	2
7554-21	O-RING	1
7554-27	O-RING	1
7554-28	O-RING	1
7734-06	WASHER	2
7958-16C	SCREW	1
7958-48C	SCREW	2
8115-02	FITTING	1
8212-12F	SCREW	3
8212-20F	SCREW	5
8212-32F	SCREW	4
CC-116	O-RING	2
CJ-137	O-RING	1
GC-1407	USER MANUAL	1
GC-1379	FRP SPRAY SETUP MANUAL	1
16J757	WASHER	1

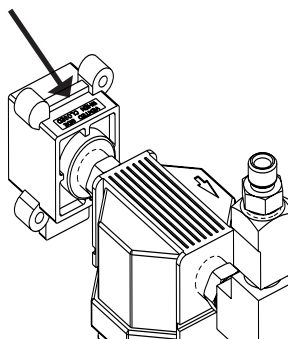
REVISION E

Pressure Relief Procedure

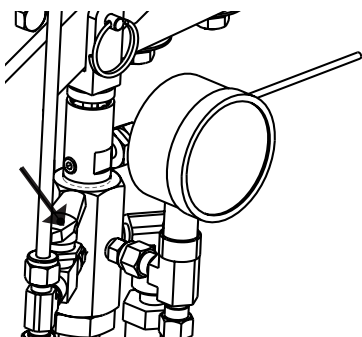


To relieve fluid and air pressures:

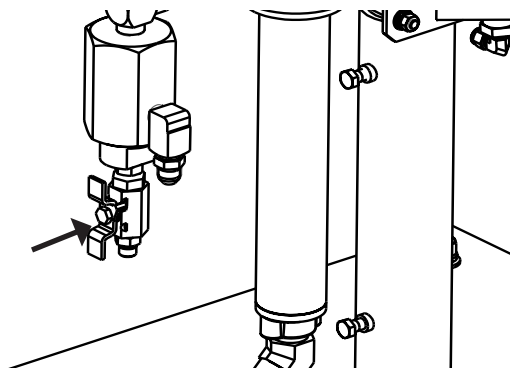
1. Push down Yellow slide valve, P/N 21402-00 to bleed off air to system.



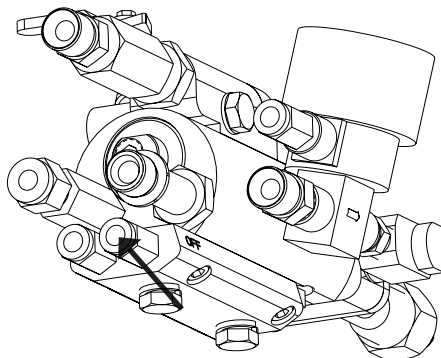
2. Open P/N 21228-00 on catalyst pump to recirculation position.



3. Open P/N 21192-00 on bottom of material pump.



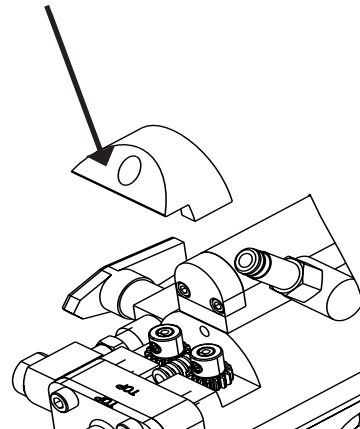
4. Verify the Trigger air is off.



Daily Maintenance

It is recommended that the following service be performed on a daily basis.

1. Remove gear cover, p/n: 23756-00, and inspect valves to see if there is any leakage, on the top or bottom side of the valves. If there is leakage, with pressure relieved, tighten packing nut, p/n: 23764-00 1/8 to 1/4 turn until leak stops. Verify that there is no leakage.



4. Maintain a reasonable stock level of "wear" items such as Packings, Seals and O-Rings
5. If dispense gun is leak tested, be sure to dry gun thoroughly.
6. **Never** leave dispense gun immersed in any liquid.

Maintenance

O-Ring Chart



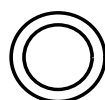
← 13867-05



← 21044-02



← 13867-07

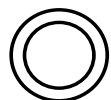


← CC-116



← 13867-08

ORANGE



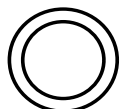
← 13867-09



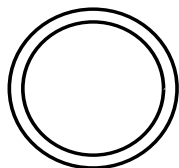
← 7554-03



← 7554-05



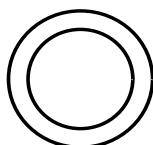
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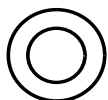
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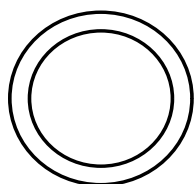
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BLACK

Maintenance

Parts Replacement Procedure Auto Formula Gun

						
Before performing maintenance on the dispense gun, follow Pressure Relief Procedure.						

Notice

Due to the different o-ring materials and lubricants used in the dispense guns, never submerge or soak any dispense gun in any type of solvent. Submerging or soaking any dispense gun will immediately void the gun warranty.

1. Read each procedure entirely before beginning and refer to the illustration views as needed.
2. Flush and clean all passages as they become accessible.
3. Clean all parts before assembly.
4. Replace all o-rings, Valves and Seals with new parts from the appropriate kit.
5. Inspect all parts for wear or damage and replace as required with new GENUINE GlasCraft REPLACEMENT PARTS from your authorized GlasCraft Distributor.
6. Inspect all threads for wear or damage and replace as required.
7. Tighten all threaded parts securely, but not excessively, upon assembly.
8. O-rings can fail if subjected to any of the following conditions.
 - a. Swelling - coming in contact with solvent or oil from compressor.
 - b. Cut - sharp, unlubricated edge in gun head or handle.
 - c. Sticky - contaminated with oil, water, solvent, catalyst, resin or gel-coat.
 - d. Chaffing - dry sliding surfaces (needs lubrication).

9. Lightly lubricate all o-rings with petroleum jelly.
10. Check all springs for resilience. They should return quickly to their original (new) length.
11. Clean the exterior of the Gun and Hoses with an appropriate, clean solvent and cloth or brush.

Hose Removal

1. Relieve pressure (See page 17).
2. Remove resin Hose with an 11/16" wrench. (Hold delivery tube with an 11/16" wrench.)
3. Remove catalyst Hose with a 9/16" wrench. (Hold delivery tube with a 9/16" wrench.)
4. Remove solvent hose with a 5/8" wrench. (Hold delivery tube with a 9/16" wrench)
5. Remove trigger air tubing by pushing in on trigger air fitting and pulling the tubing out.
6. If optional fiberglass chopper is being used, remove the chopper air hose with a 11/16" wrench. (Hold the air hose inlet fitting with a 9/16" wrench)



Tape a clean polyethylene bag over the end of each Hose to prevent spillage and to keep clean.

Gun Service

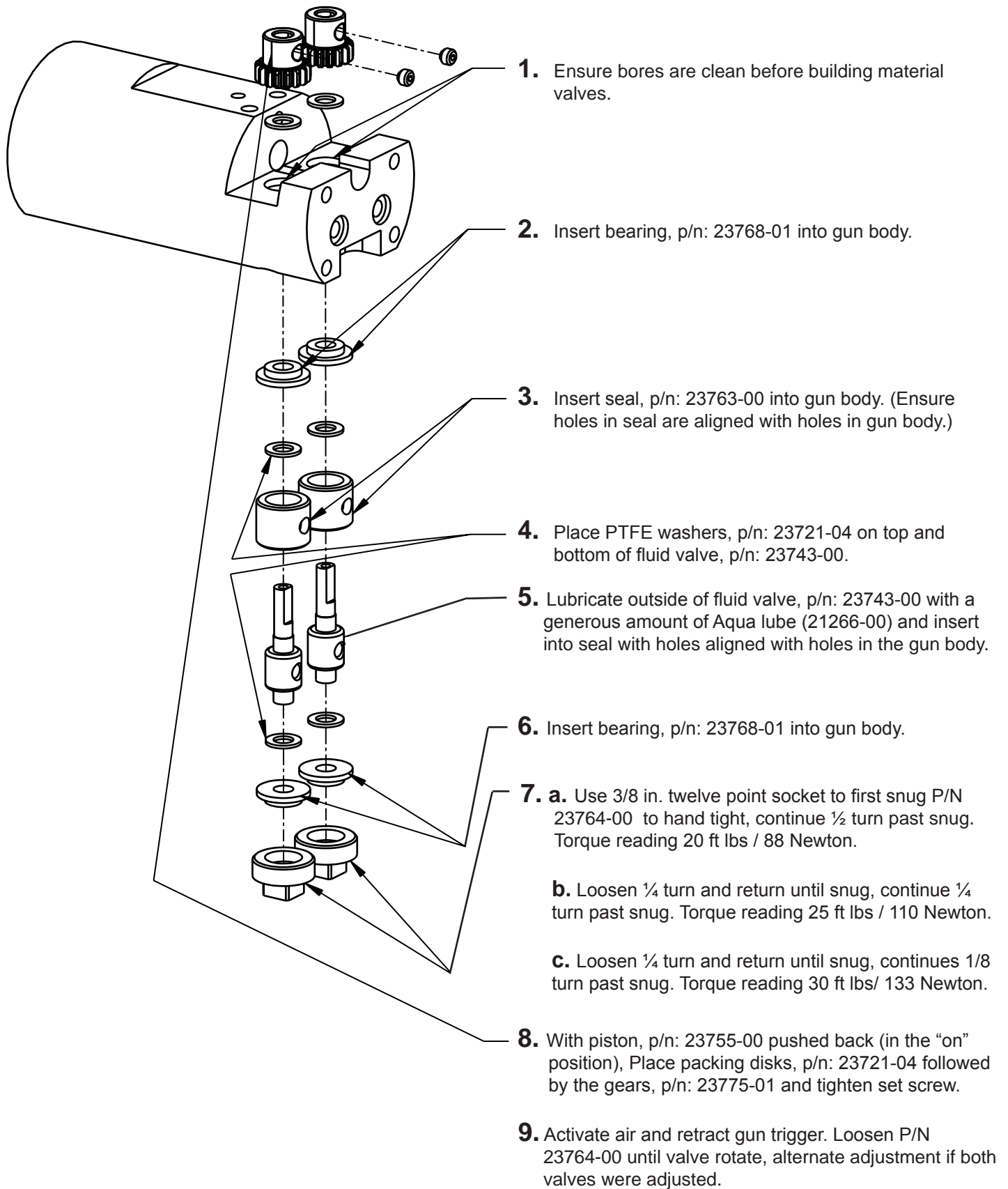
Dispense Gun Component Service and Assembly Procedures



If Seal, P/N 23763-00 and Packing Disks, P/N 23721-04 are removed from the Gun Body GlasCraft recommends that these parts always be replaced with NEW seals and packing disks.

Maintenance

Material Valve Assembly Procedure



Accessories

Dispense Tip Reference Chart

PART NUMBER	ORIFICE	Min. Width (in.)	Max. Width (in.)	Min. Output (lbs.)	Max Output (lbs.)
23005- C4	0.040	7	16.5	5.4	10.02
C5	0.050	8.5	15.5	6.36	12.23
C6	0.060	7	17	7.31	11.01
C7	0.070	7	13	8.53	10.58
C8	0.080	10	12.5	10.28	13.03
C9	0.090	7.5	10	11.49	12.36
E4	0.040	6	21	4.01	9.16
E5	0.050	11	21	5.71	10.23
E6	0.060	6.5	18.5	5.48	11.48
E7	0.070	7.5	15	7.96	10.58
E8	0.080	6	15.5	8.61	12.03
E9	0.090	7.5	15	9.61	12.36
G4	0.040	6	24	4.01	9.16
G5	0.050	10.5	32	4.31	10.23
G6	0.060	8.5	24	5.48	11.48
G7	0.070	6.5	25.5	6.43	10.58
G8	0.080	10	22	8.61	12.03
G9	0.090	7	16	8.53	12.36
J4	0.040	7	36.5	4.01	9.16
J5	0.050	7	30.5	4.31	10.23
J6	0.060	10	28	5.48	11.48
J7	0.070	7.5	26	6.43	10.58
J8	0.080	10	24	8.61	12.03
J9	0.090	11	20	8.53	10.58
K3	0.040				
K4	0.040	9.5	38	4.01	9.16
K5	0.050	12	34	4.31	10.23
K6	0.060	16	34	5.48	11.48
K7	0.070	13	30	6.43	10.58
K8	0.080	8	28	6.21	12.03
K9	0.090	11	25	7.88	12.36
M4	0.040	11	61	4.01	9.16
M5	0.050	13	38	4.31	10.23
M6	0.060	9	38	4.33	11.48
P4	0.040				

Accessories

Dispense Tip Reference Chart

PART NUMBER	ORIFICE	
23005- TC6	0.060	*
TC7	0.070	*
TC8	0.080	*
TE7	0.070	*
TG7	0.070	*

*INDICATES THAT THESE TIPS ARE MADE WITH A2 TOOL STEEL

PART NUMBER	ORIFICE
23047- J1	.012
J2	.014
J3	.022
M1	.012
M2	.014
M3	.022
N1	.012
N2	.014
N3	.022
P1	.012
P2	.014
P3	.022

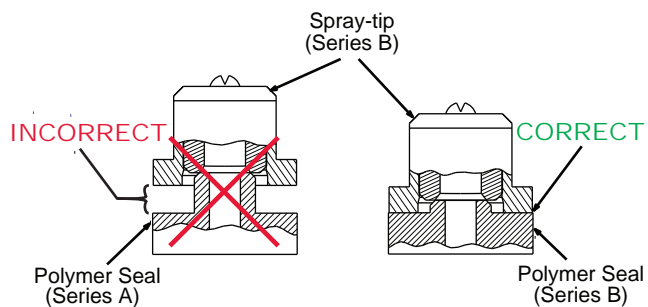
Accessories

Dispense Tip Reference Chart

PART NUMBER	ORIFICE
LPA2-147-1525	0.015
1540	0.015
1825	0.018
1840	0.018
1850	0.018
2125	0.021
2140	0.021
2150	0.021
2325	0.023
2340	0.023
2350	0.023
2365	0.023
2640	0.026
2650	0.026
3125	0.031

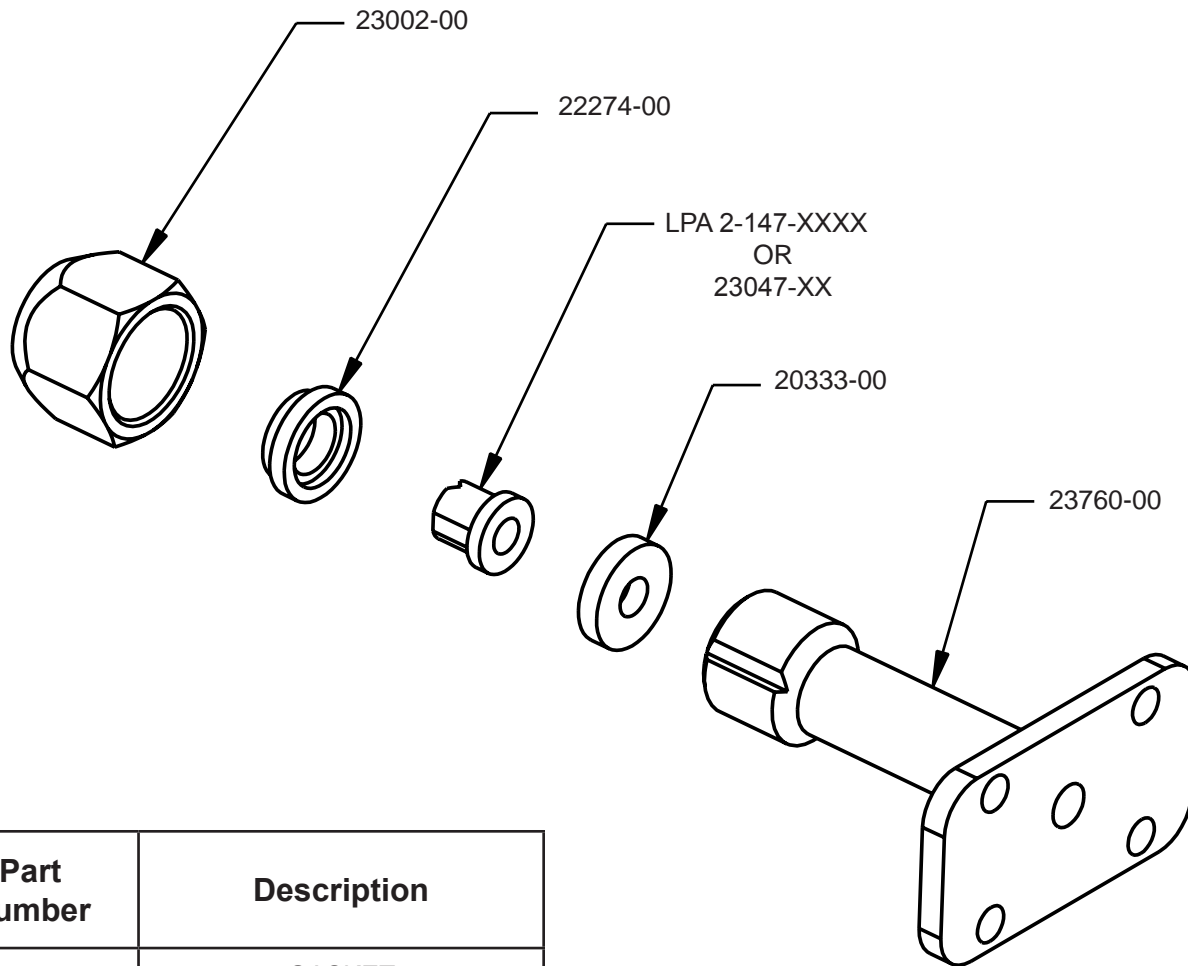
PART NUMBER	ORIFICE
3140	0.031
3150	0.031
3625	0.036
3640	0.036
3650	0.036
3840	0.038
3850	0.038
4325	0.043
4340	0.043
4350	0.043
5225	0.052
5240	0.052
5250	0.052
5265	0.052
6240	0.062

PART NUMBER	ORIFICE
6250	0.062
6265	0.062
7240	0.072
7250	0.072



Accessories

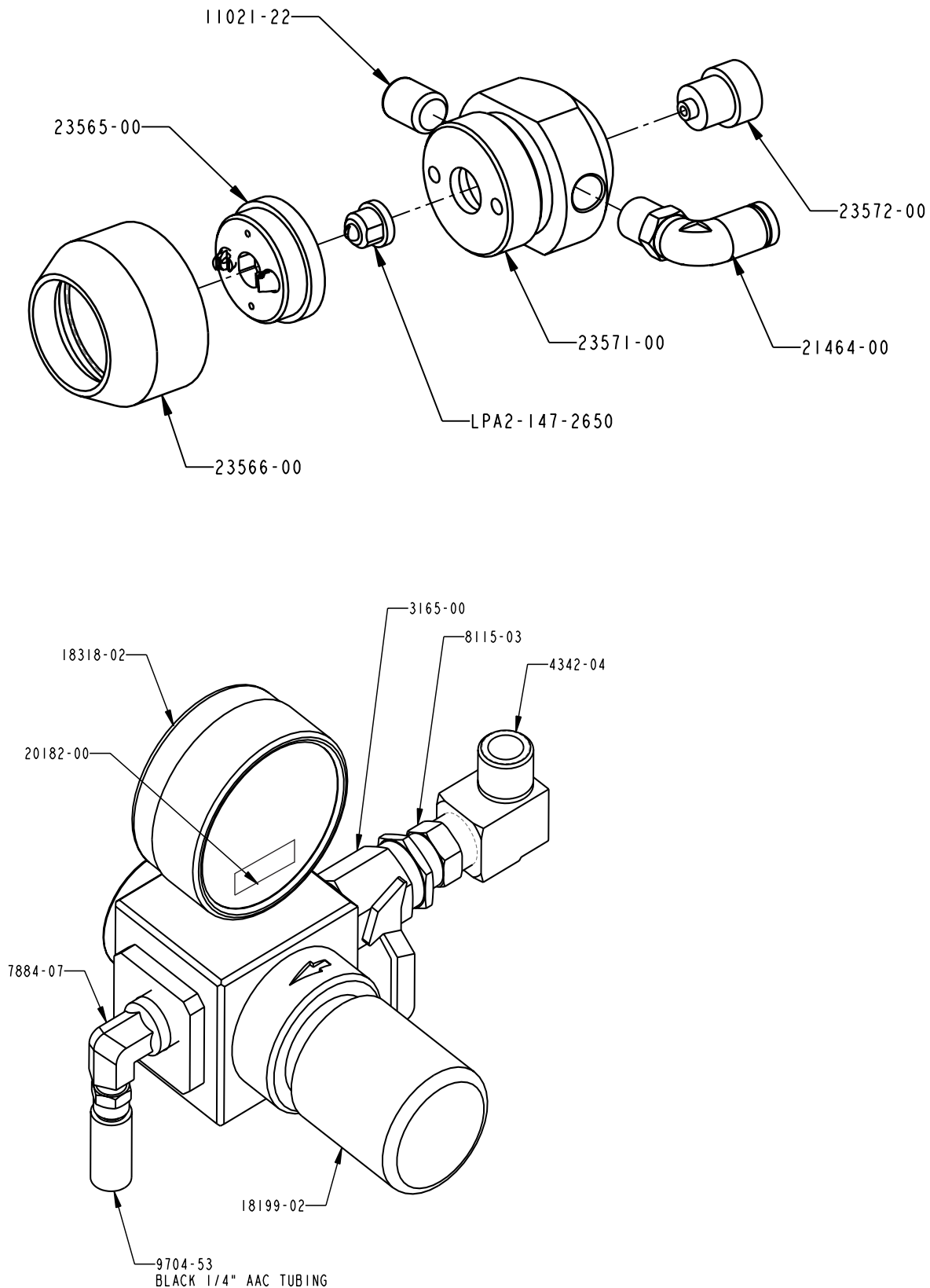
Small Diameter Airless Or Non Atomized Material Tip



Part Number	Description
20333-00	GASKET
22274-00	TIP SPACER
23002-00	RETAINING NUT
23047-XX	SPRAY TIP
23760-00	GUN FRONT HOUSING

Accessories

Internal Mix Gel - Screw-On AAC Gun Head Kit (23750-00)



Accessories

Internal Mix Gel - Screw-On AAC Gun Head Kit (23570-00)

23570-00 ASSY.	
Part Number	Description
11021-23	PLUG
21464-00	ELBOW FITTING
23565-00	AIR ASSIST RING
23566-00	RETAINING RING
23571-00	AIR ASSIST NOZZLE BODY
LPA2-147-2150	SPRAY TIP

REGULATOR ASSY.	
Part Number	Description
3165	BALL VALVE
4342-04	ELBOW FITTING
7884-07	ELBOW FITTING
8115-03	NIPPLE FITTING
9704-53	BLACK AAC TUBING
18199-02	REGULATOR
18318-02	GAUGE
20182-00	AAC DECAL



The following is not included in this kit, but required:

(1) 7716-06C Set screw

XX-9704-53 Black AAC Tubing (XX= YOU MUST SPECIFY TUBING LENGTH BY FEET)

EXAMPLE: If standard machine hose length is 25ft, it is recommended to order 28ft. of 9704-53.

Remove: 23765-00 Chopper mounting assembly and place 7716-06C set screw in middle tapped hole - (USE THREAD LOCKER MEDIUM STRENGTH TO KEEP FROM LEAKING)

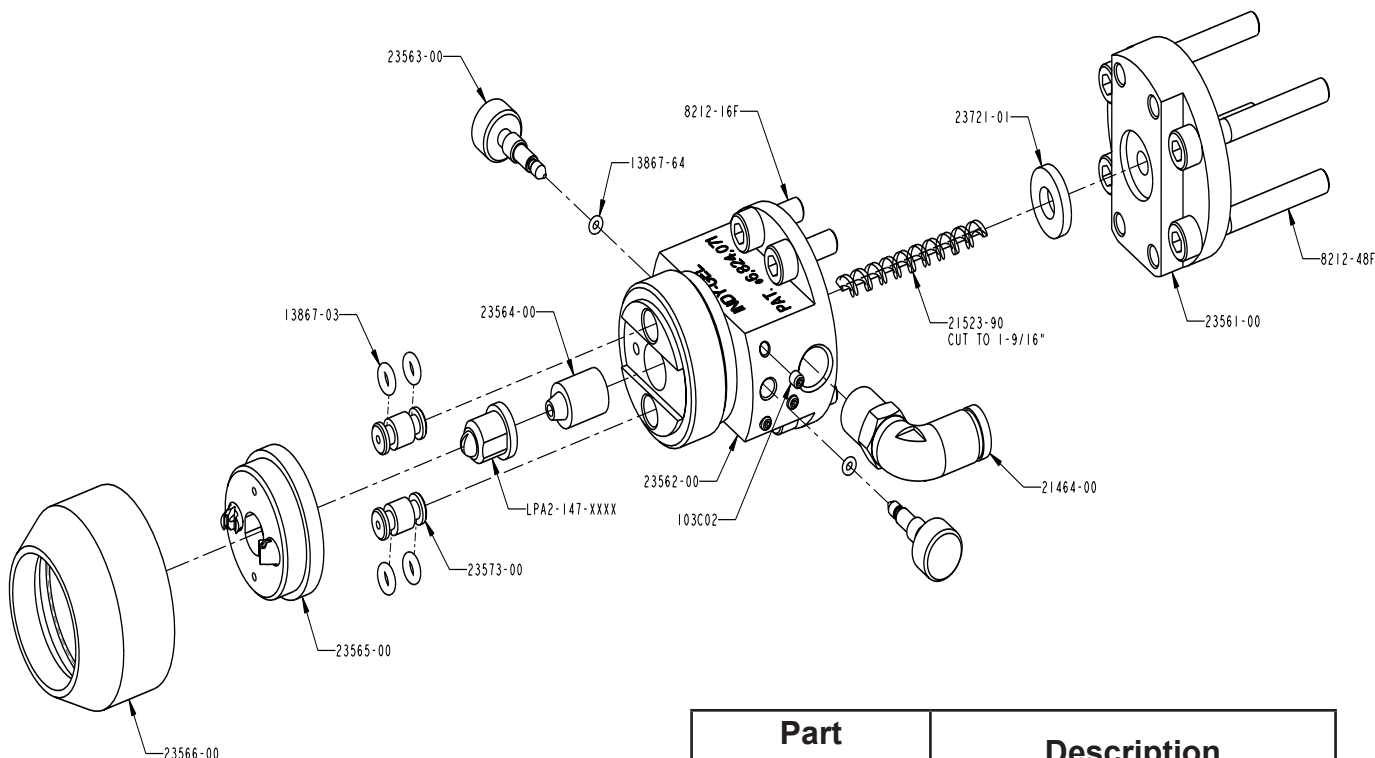
Reason: To remove extra weight and bulk from the gun, for gelcoat application.

Add regulator assembly shown on page 33 to air manifold.

Reason: This will allow user to regulate AAC air to the gun.

Accessories

23560-00 Internal Mix Gel Bolt - on AAC Gun Head Kit



Part Number	Description
103C02-01	SET SCREW
13867-03	O-RING
13867-64	O-RING
21464-00	ELBOW FITTING
21523-90	SPIRAL MIXING ELEMENT
23561-00	AIR ASSIST ADAPTER

Part Number	Description
23562-00	DUAL AIR ASSIST BODY
23563-00	AIR ASSIST NEEDLE
23564-00	AIR ASSIST SEAL
23565-00	AIR ASSIST RING
23566-00	RETAINING RING
23573-00	RING INSERT
23721-01	WASHER
8212-16F	SCREW
8212-48F	SCREW
LPA2-147-XXXX	SPRAY TIP



The following is not included in this kit, but required:

(1) 7834-07 Elbow Fitting (Connection To Air Manifold)

XX-9704-53 Black AAC Tubing (XX= YOU MUST SPECIFY TUBING LENGTH BY FEET)

EXAMPLE: If standard machine hose length is 25ft, it is recommended to order 28ft. of 9704-53.

Required: qty. (1) 7716-06C set screw.

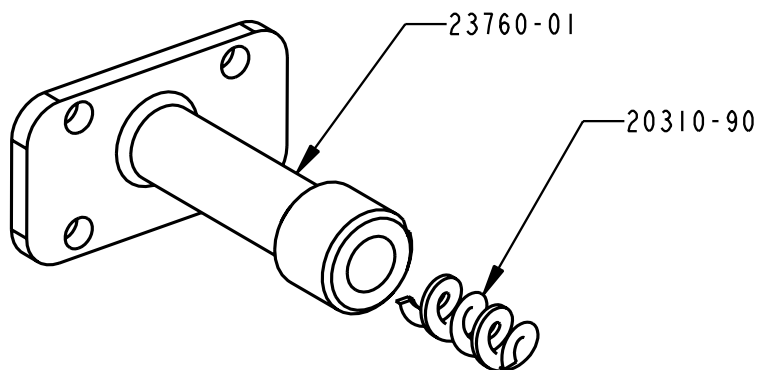
Remove: 23765-00 Chopper mounting assembly and place 7716-06C set screw in middle tapped hole - (USE THREAD LOCKER MEDIUM STRENGTH TO KEEP FROM LEAKING)

Reason: To remove extra weight and bulk from the gun, for gel coat application.

Delete: qty. (4) 8212-48F shoulder screw, Keep and use existing 8212-32F shoulder screws.

Accessories

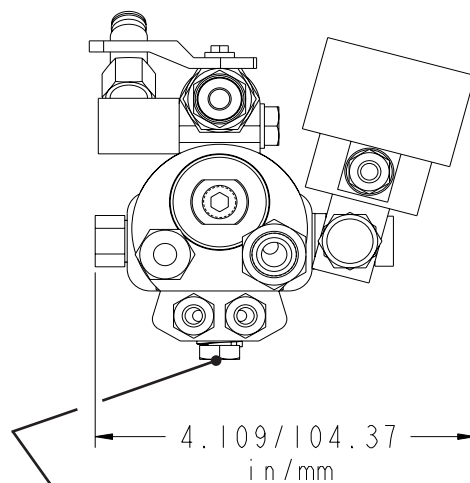
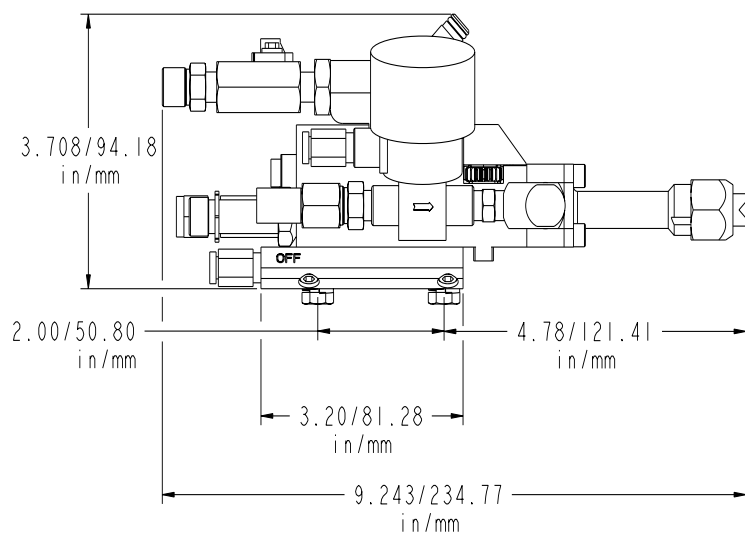
High Volume / High Filled Resin



Part Number	DESCRIPTION
20310-90	3/8" MIXING ELEMENT
23760-01	3/8" FRONT MIXER HOUSING

Technical Data

Category	Data
Maximum Fluid Working Pressure	2000 psi (14 MPa, 138 bar)
Maximum Air Inlet Pressure	100 psi (0.7 MPa, 7 bar)
Typical Flow Rate of Pattern Guns	Dependent of spray tip
Maximum Fluid temperature	100° F (38° C)
Trigger Air	1/4in. Tube
Air Inlet Size (Chopper)	1/4-18 NPS Male
A Component (Catalyst) Inlet Size	1/4 in. Tube
B Component (Resin) Inlet Size	1/4-18 NPS Male
Solvent Flush	1/4-18 NPS Male
Solvent Air	1/4in. Tube
Sound Pressure	75.8 dB(A)
Sound Power, measured per ISO 9614-2	60.2 dB(A)
Dimensions	9.24 L X 4.10 W X 3.70 H (234.77 X 104.37 X 94.18 mm)
Weight	2.15 lb (0.98 kg)
Wetted Parts	Catalyst- Chemically coated aluminum, stainless steel, chemically resistant o-rings Resin- Carbon steel, carbide, chemically resistant o-rings.



Mounting Bolts-
1/4-20 UNC Thread
.281 in Dia. Through Hole
Recommended

Notes

[illegible]

Graco Ohio Standard Warranty

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

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

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

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

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Original instructions. This manual contains English. MM GC-1407

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