Operation

GLASCRAFT
COMPOSITES EQUIPMENT BY GRACO

Internal-System

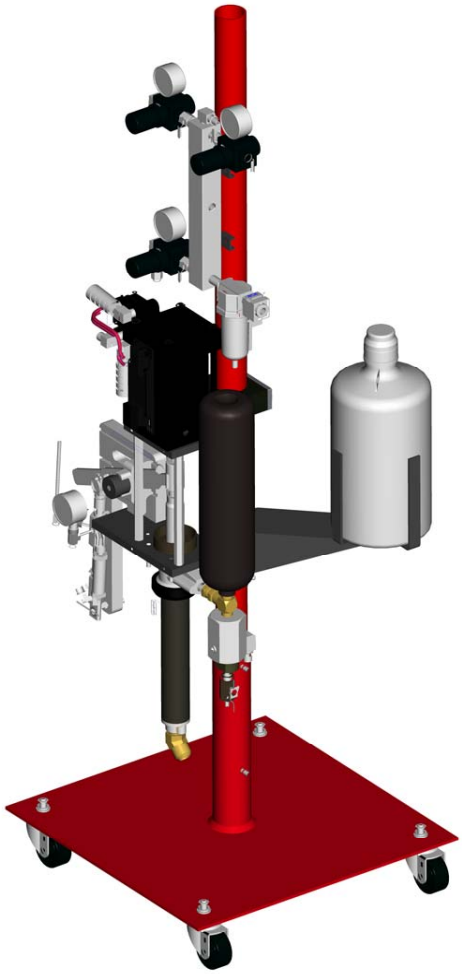
GC-1317D

Low Emission Internal-Mix Gel-Coat
For use with Polyester Resin, and Gel-Coat

Maximum fluid working pressure:
20864-05 - 1300 psi. (9 MPa, 90 bar)
21780-01 - 1700 psi. (12 MPa, 117 bar)
22026-01 - 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.



CE Ex II 2 G PG HO03

Contents

Warnings

Set-up

Maintenance

Technical Data

N/A = Non Applicable

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

FIRE AND EXPLOSION HAZARD

Flammable fumes, such as solvent and paint fumes, in **work area** can ignite or explode. To help prevent fire and explosion:

- 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.
- See additional information on MEKP in the MEKP Section of this manual.

PERSONAL PROTECTIVE EQUIPMENT

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:

- Protective eyewear
- Clothing and respirator as recommended by the fluid and solvent manufacturer
- Gloves
- Hearing protection

TOXIC FLUID OR FUMES HAZARD

Toxic fluids or fumes can cause serious injury or death if splashed in the eyes or on skin, inhaled, or swallowed.

- 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



SKIN INJECTION HAZARD

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.**

- 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.

MOVING PARTS HAZARD

Moving parts can pinch or amputate fingers and other body parts.

- 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.

EQUIPMENT MISUSE HAZARD

Misuse can cause death or serious injury.

- 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.

PRESSURIZED ALUMINUM PARTS HAZARD

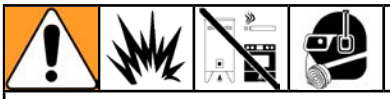
Do not use 1,1,1-trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents in pressurized aluminum equipment. Such use can cause serious chemical reaction and equipment rupture, and result in death, serious injury, and property damage.

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 contaminates 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 Decompisition 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. Diluants add to the possibility of contaminates 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 an 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.

Notice
The Mast must be secured in the retracted position, and held secure to prevent rotation before transporting the system.

Set-Up

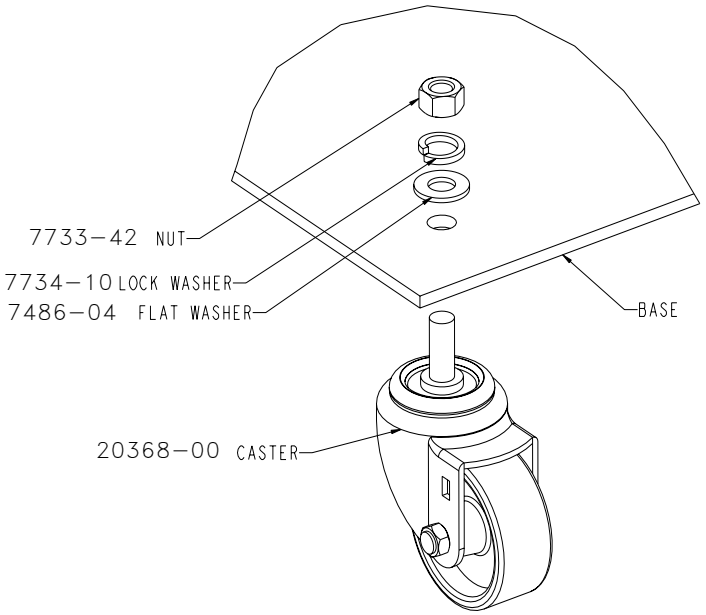
Any mounting option: cart mast and boom, floor mount, or wall mount should be completely assembled before starting the following steps.

Tools Required:

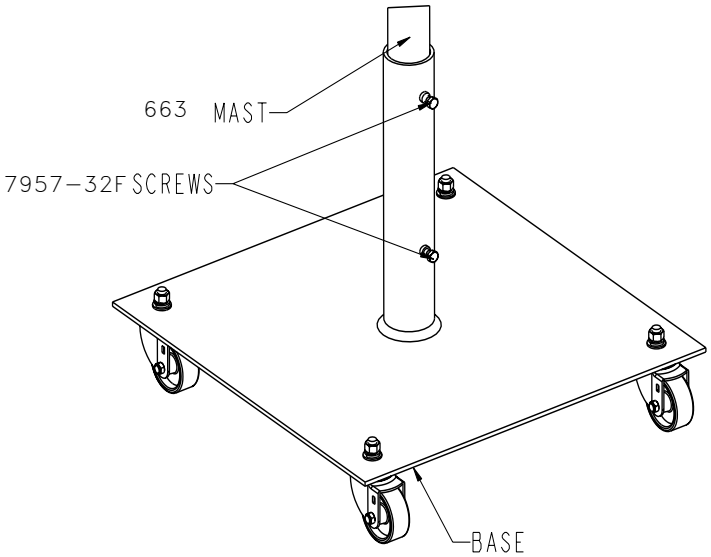
1) Standard wrench & socket set
2) Standard hex key set
3) Tape measure or yard stick

All "Required tools" are standard sizes.

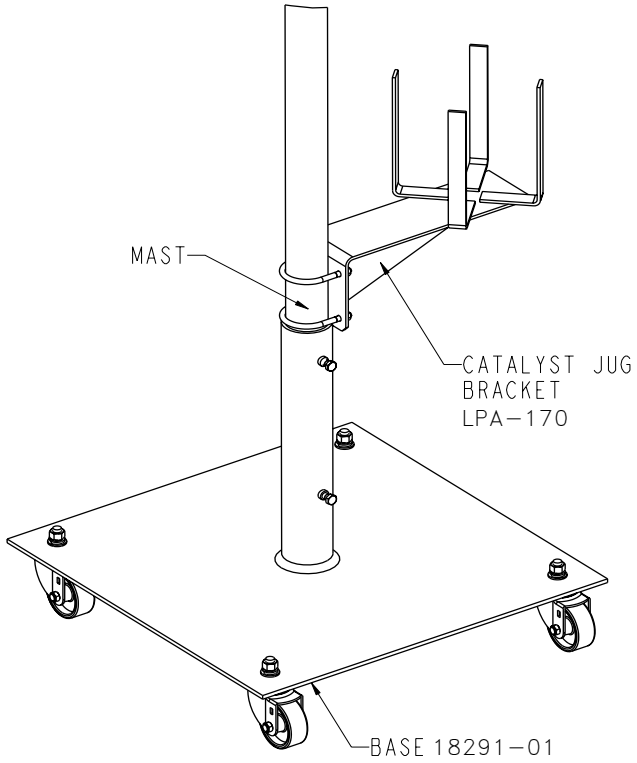
1. Attach casters to base plate.



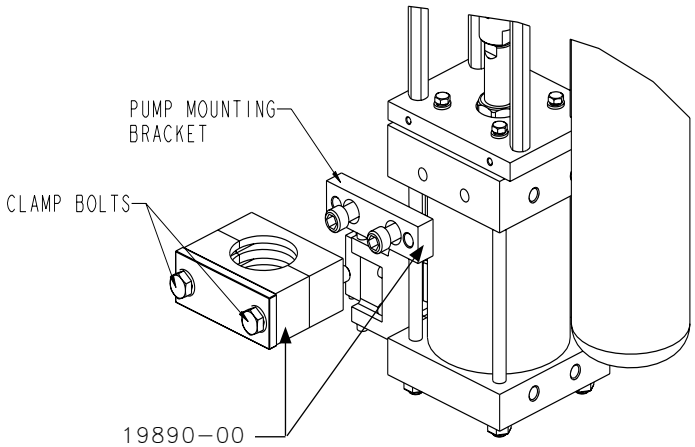
2. Insert mast into base socket and secure with supplied bolts.



3. Slide catalyst jug bracket over the mast and DO NOT TIGHTEN.

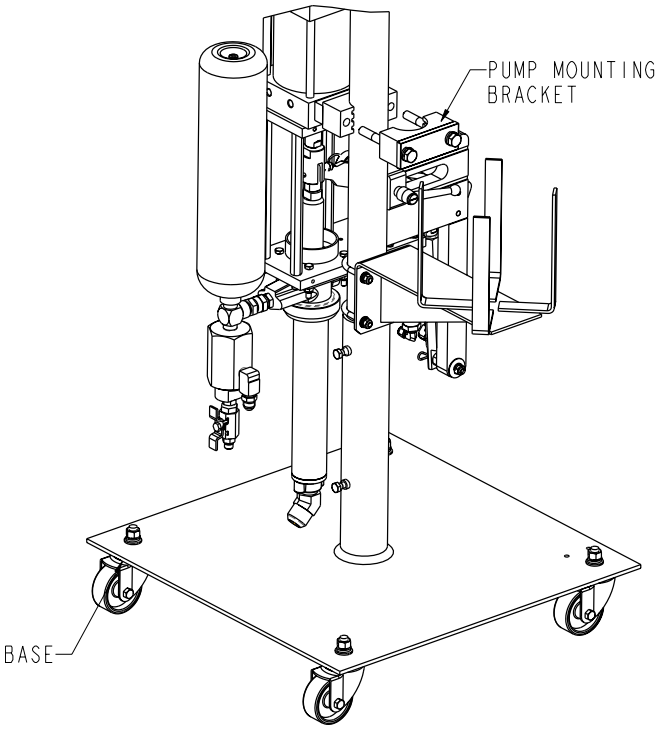


4. Loosen clamp bolts to expose pump mounting bracket. Attach pump mounting bracket to the air motor. Use thread locker on the threads and tighten bolts as tight as possible.

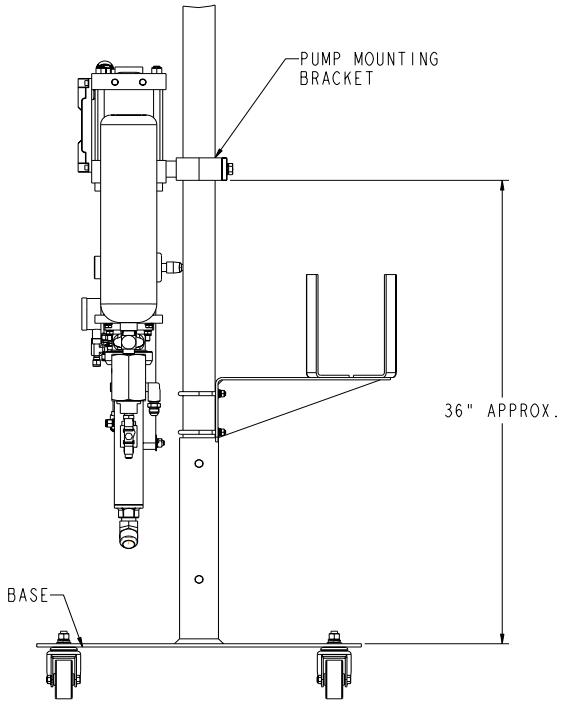


Set-Up

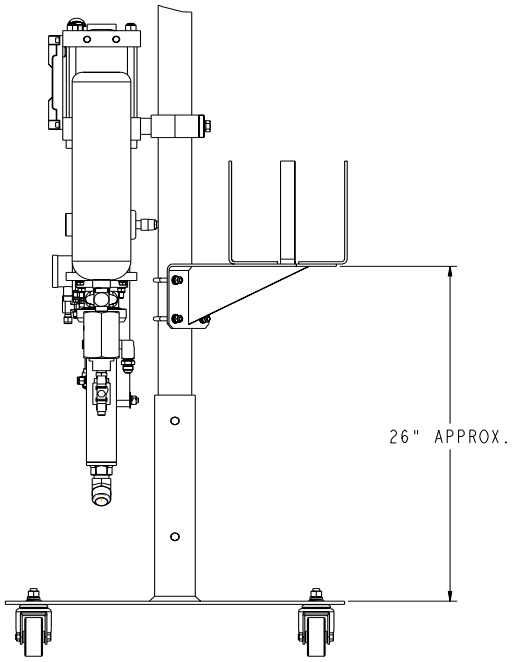
5. a. Stand pump assembly next to the mast and install the pump mounting bracket.

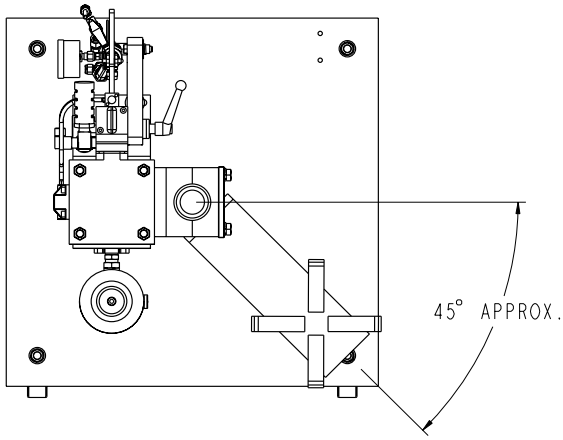


b. Lift to desired height, approximately 36” from the top of the base to the bottom of the pump mounting bracket. Use 3/4” wrench and tighten as tight as possible.

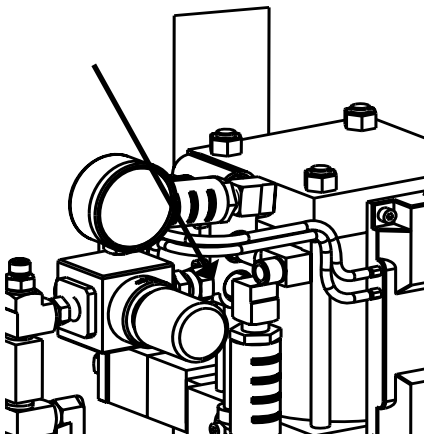


6. Mount catalyst bottle approximately 26” from the top of the base plate, to the bottom of the catalyst bracket.





7. Attach air manifold p/n 23555-00 to the air motor.



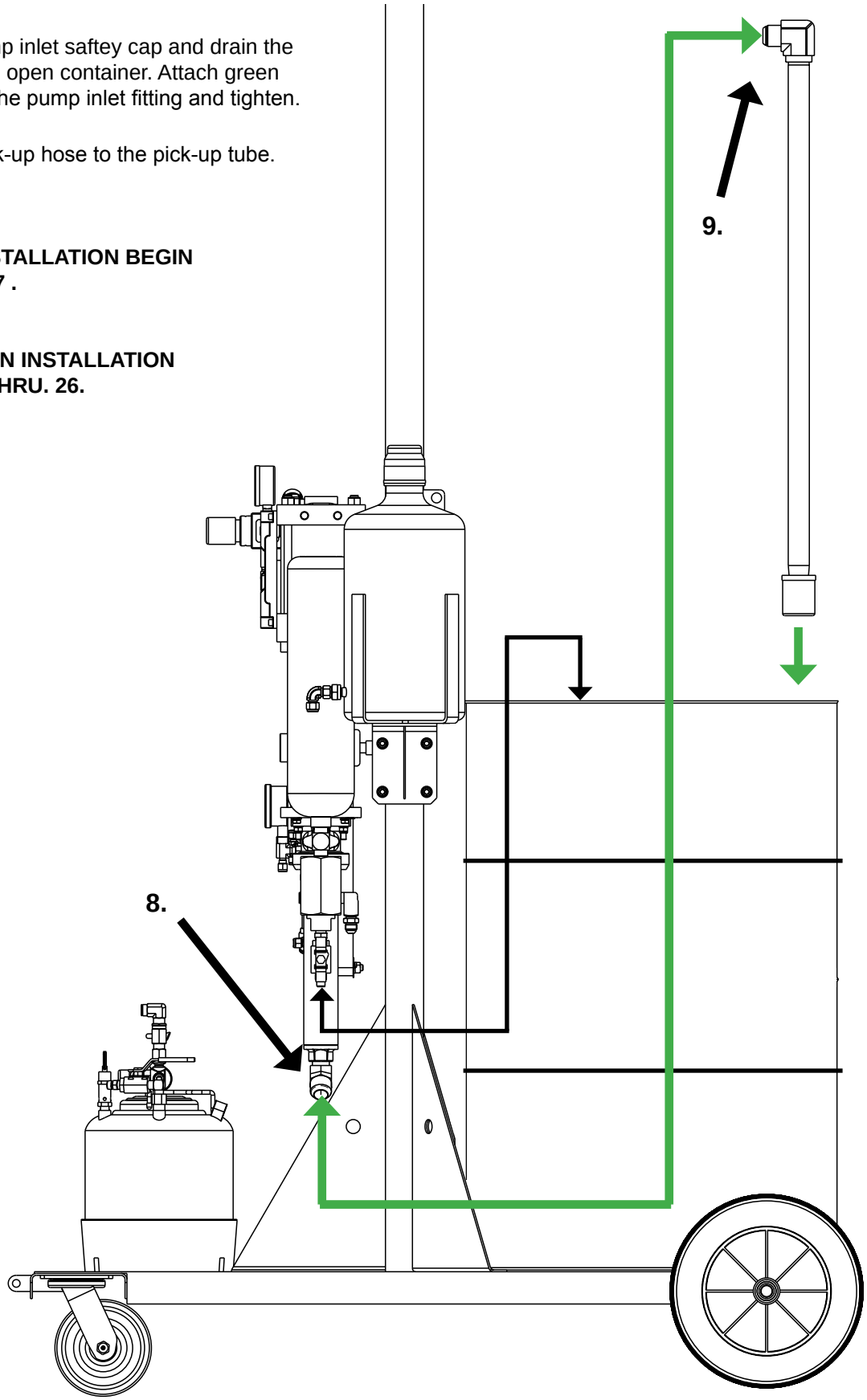
Set-Up

8. Remove the pump inlet saftey cap and drain the testing oil into an open container. Attach green pick-up hose to the pump inlet fitting and tighten.

9. Attach green pick-up hose to the pick-up tube.

FOR INDY GUN INSTALLATION BEGIN STEPS 10 THRU. 17 .

FOR FORMULA GUN INSTALLATION BEGIN STEPS 18 THRU. 26.

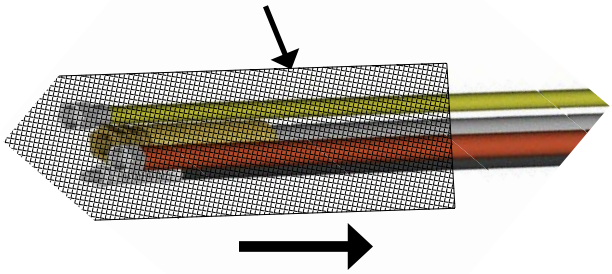


Set-Up

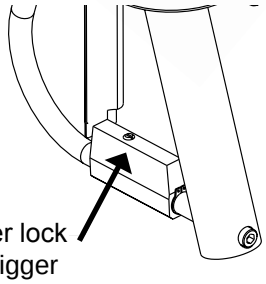
Indy Gun Option

10. a. Lay all of the hoses out straight.

b. Slide the supplied “black scuff jacket” p/n FM-494 over the hose assembly and leave it loose until the hoses are attached to the gun.

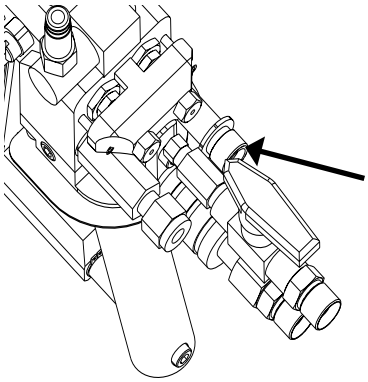


11. Engage the trigger lock.

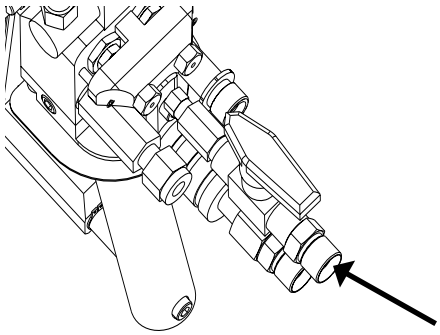


Rotate trigger lock to stop the trigger from being activated.

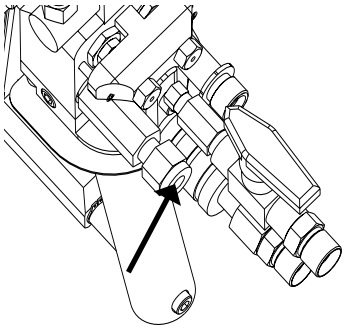
12. Attach the (black p/n 21694-xx) material hose to the material inlet fitting on the back of the gun.



13. Attach the (yellow p/n 236 or 236-xx) solvent hose to the inlet fitting on the back of the gun.



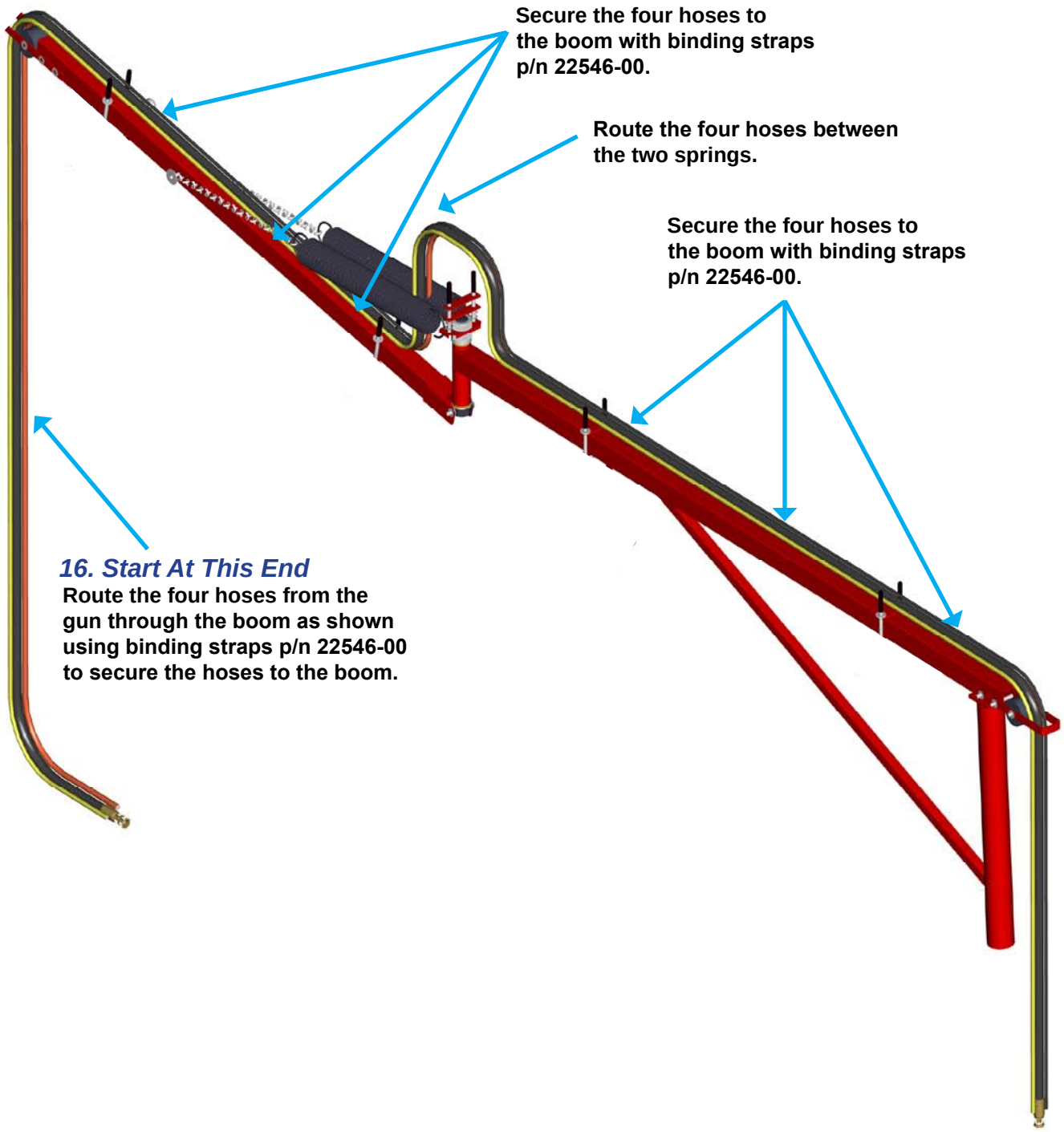
14. Attach the (stainless steel p/n 20190-xx) catalyst hose to the catalyst inlet fitting on the back of the gun.



15. a. Group the hoses together as shown and wrap them with tape about every 2 feet.

b. Start approx. 12 in. back from the gun and tape the end of the “black scuff jacket” with black tape. Spread the “black scuff jacket” out so it fits snug around the hoses and tape the other end with black tape.

Set-Up

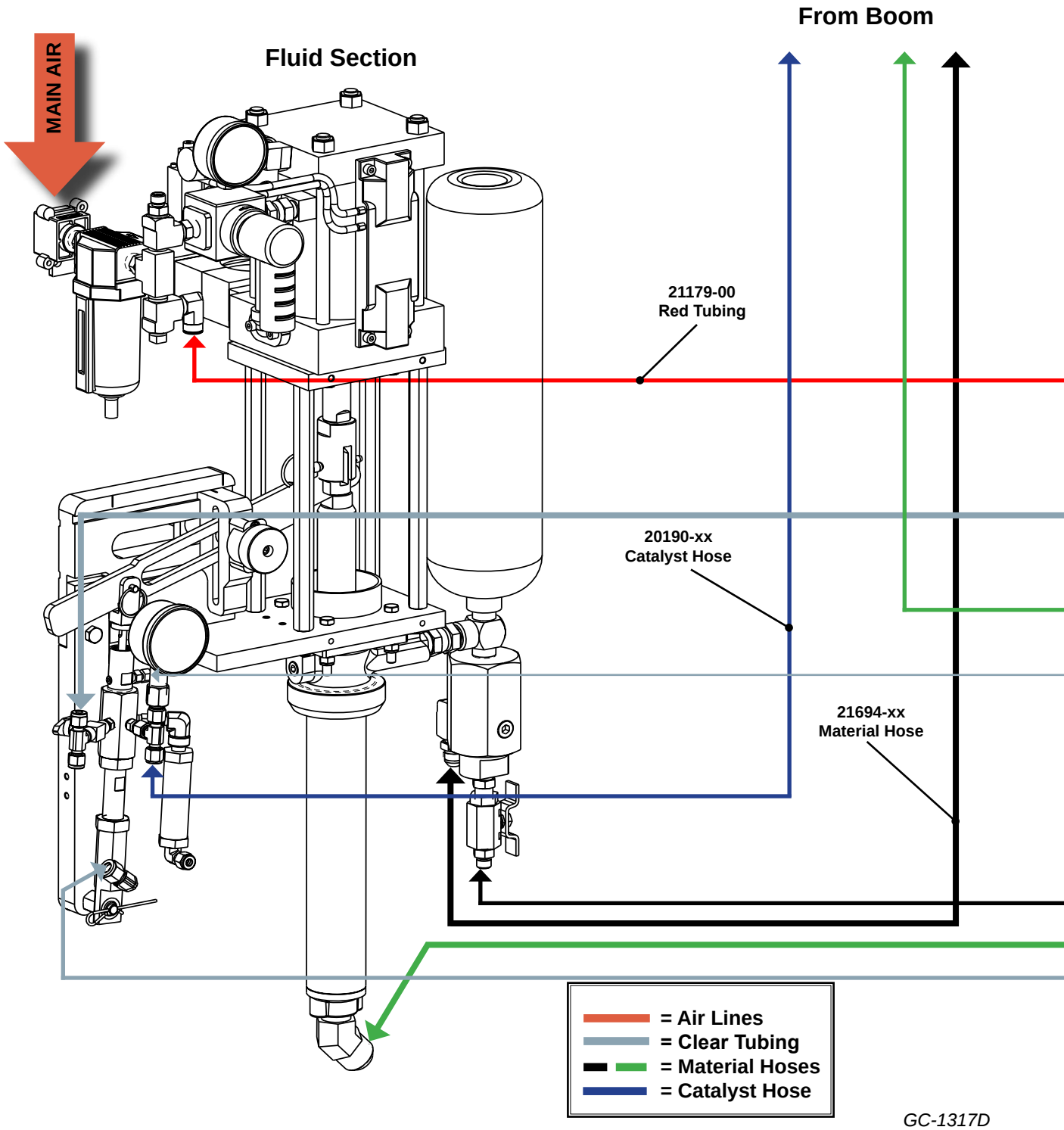

Secure the four hoses to the boom with binding straps p/n 22546-00.
Route the four hoses between the two springs.
Secure the four hoses to the boom with binding straps p/n 22546-00.
16. Start At This End
Route the four hoses from the gun through the boom as shown using binding straps p/n 22546-00 to secure the hoses to the boom.

Set-Up

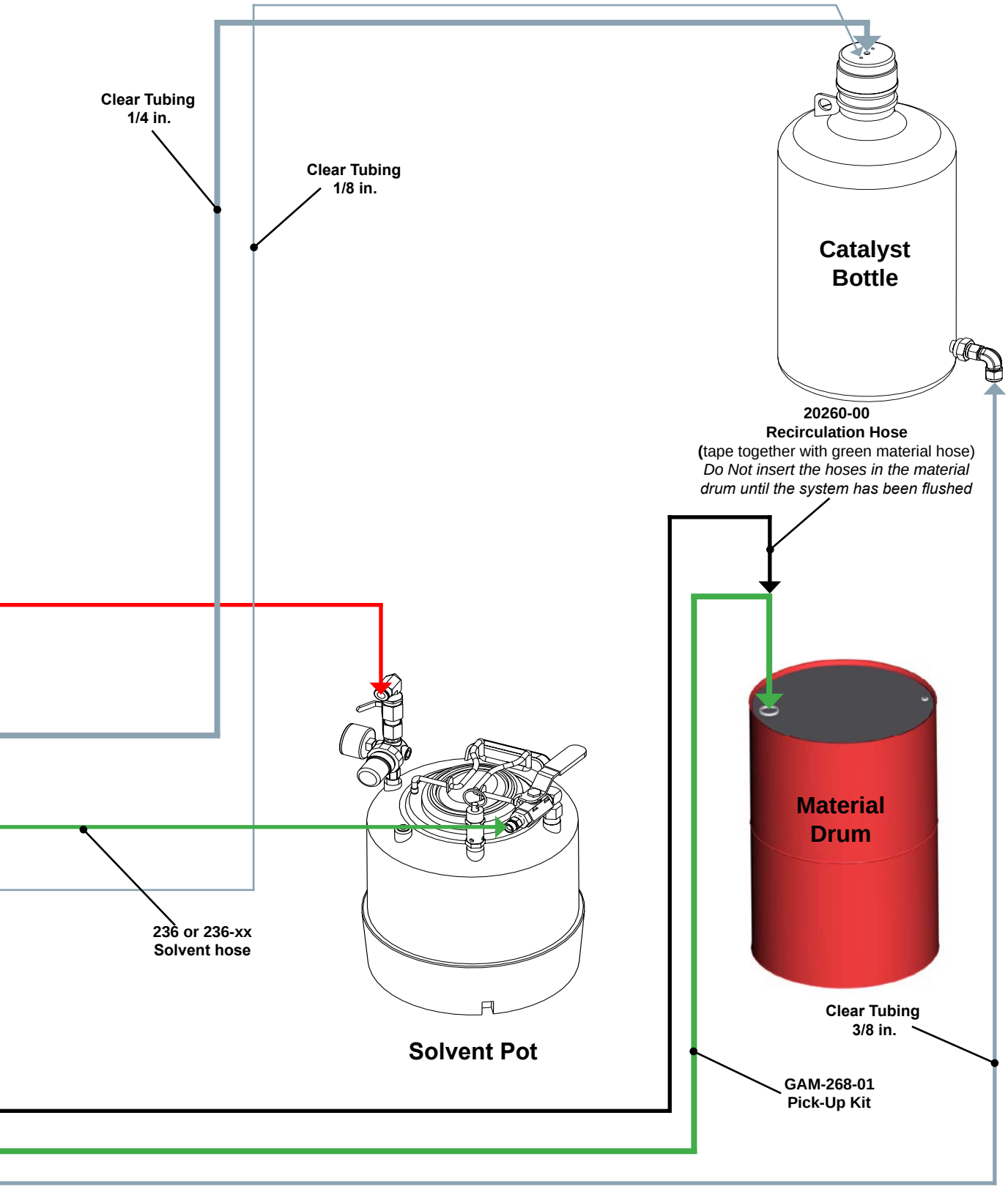
Indy Dispense Gun

17. Attach all hoses and tubing as shown.

This diagram is for displaying point to point hook-up ONLY and DOES NOT suggest actual routing of hoses and tubing. All hoses and tubing should be routed neatly, and free of any moving components.



Set-Up

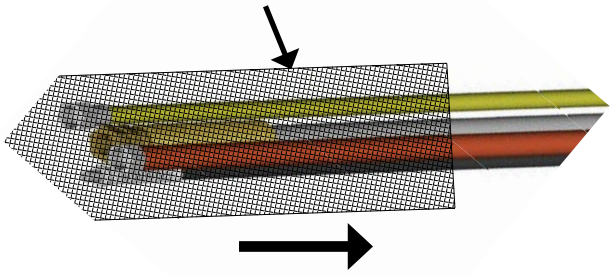

Clear Tubing
1/4 in.
Clear Tubing
1/8 in.
Catalyst
Bottle
20260-00
Recirculation Hose
(tape together with green material hose)
Do Not insert the hoses in the material drum until the system has been flushed
Material
Drum
236 or 236-xx
Solvent hose
Solvent Pot
Clear Tubing
3/8 in.
GAM-268-01
Pick-Up Kit

Set-Up

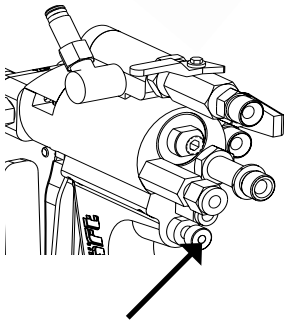
Formula Gun Option

18. a. Lay all of the hoses out straight.

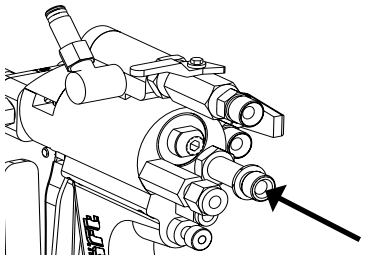
b. Slide the supplied “black scuff jacket” p/n FM-494 over the hose assembly and leave it loose until the hoses are attached to the gun.



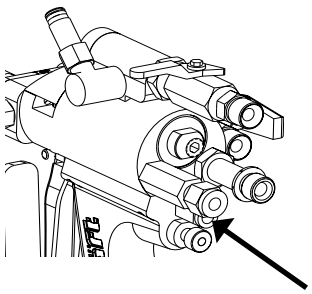
19. Push in and rotate the trigger lock to stop the trigger from being activated.



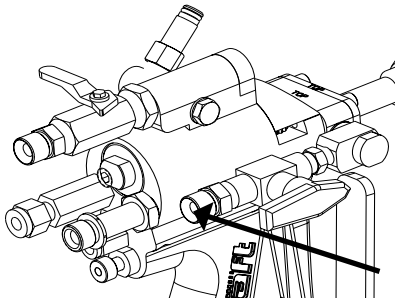
20. Attach the (black p/n 20195-xx) material hose to the material inlet fitting on the back of the gun.



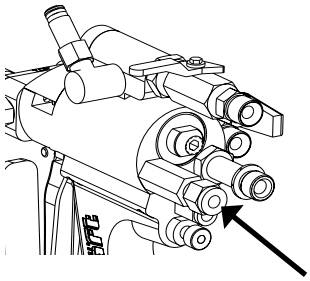
21. Attach the (clear p/n 9704-03) trigger air tubing to the trigger air inlet fitting on the back of the gun.



22. Attach the (yellow p/n 236 or 236-xx) solvent hose to the solvent inlet fitting on the back of the gun.



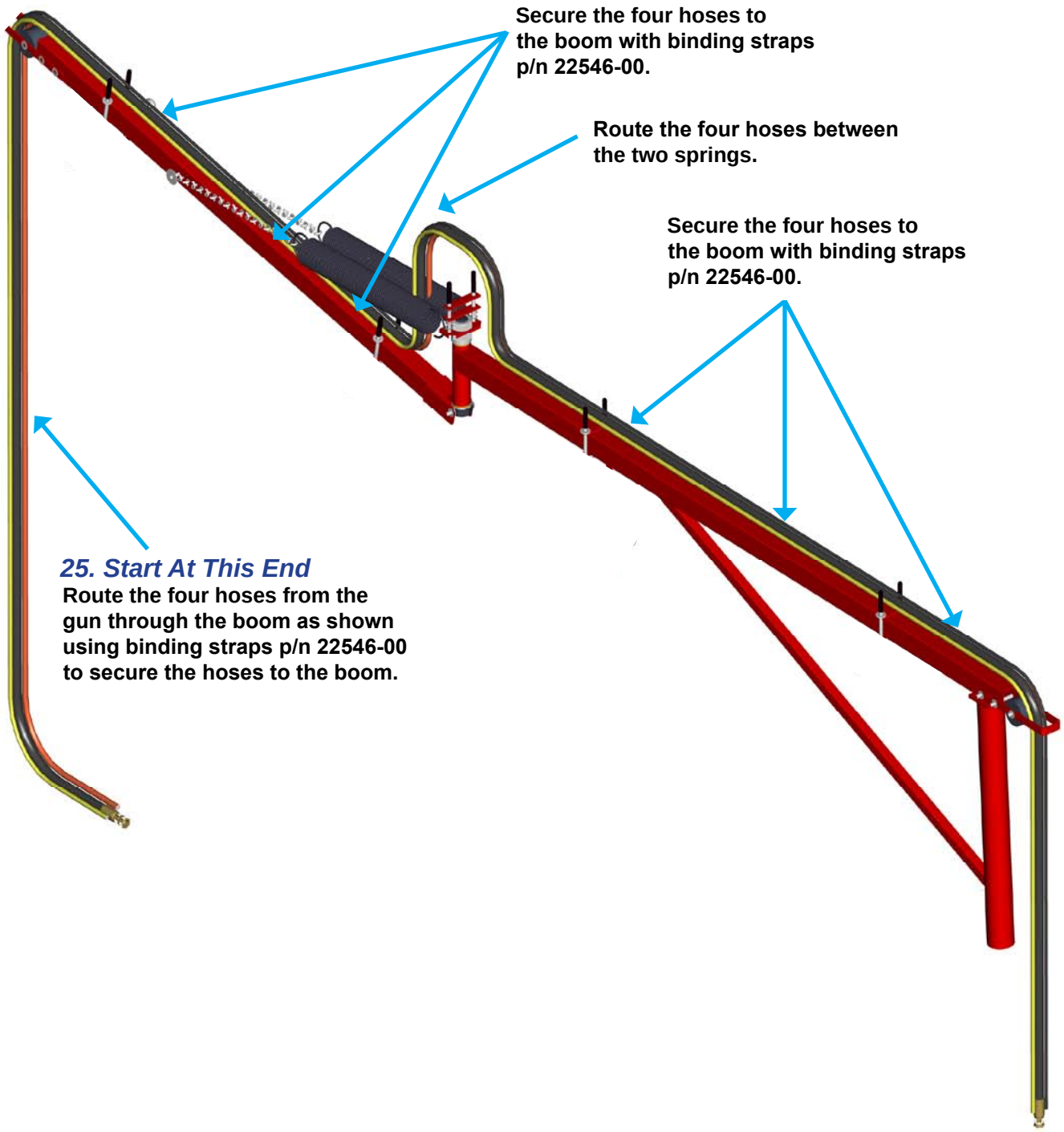
23. Attach the (stainless steel p/n 20190-xx) catalyst hose to the catalyst inlet fitting on the back of the gun.



24. a. Group the hoses together as shown and wrap them with tape about every 2 feet.

b. Start approx. 12 in. back from the gun and tape the end of the “black scuff jacket” with black tape. Spread the “black scuff jacket” out so it fits snug around the hoses and tape the other end with black tape.

Set-Up



25. Start At This End

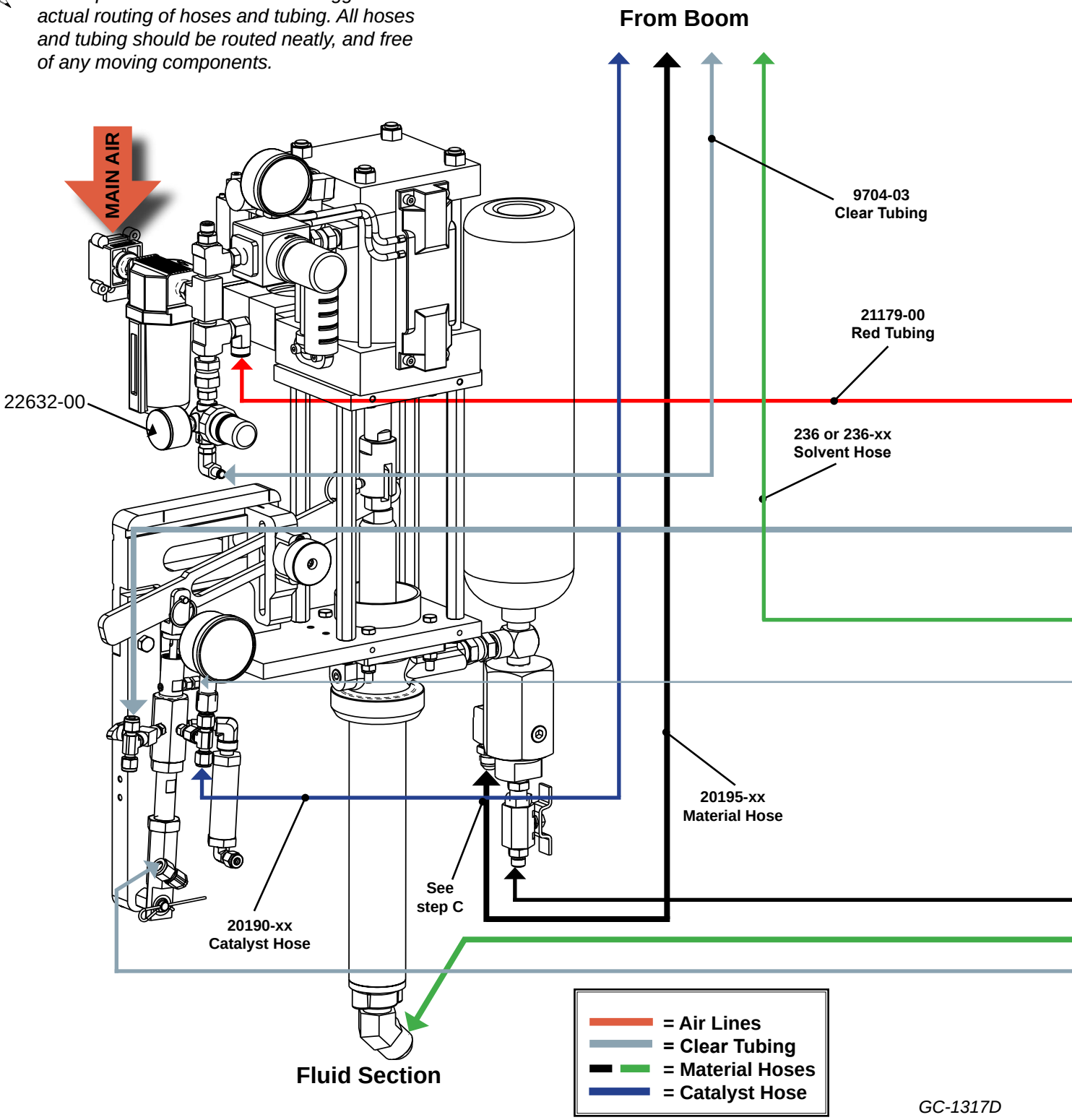
Route the four hoses from the gun through the boom as shown using binding straps p/n 22546-00 to secure the hoses to the boom.

Set-up

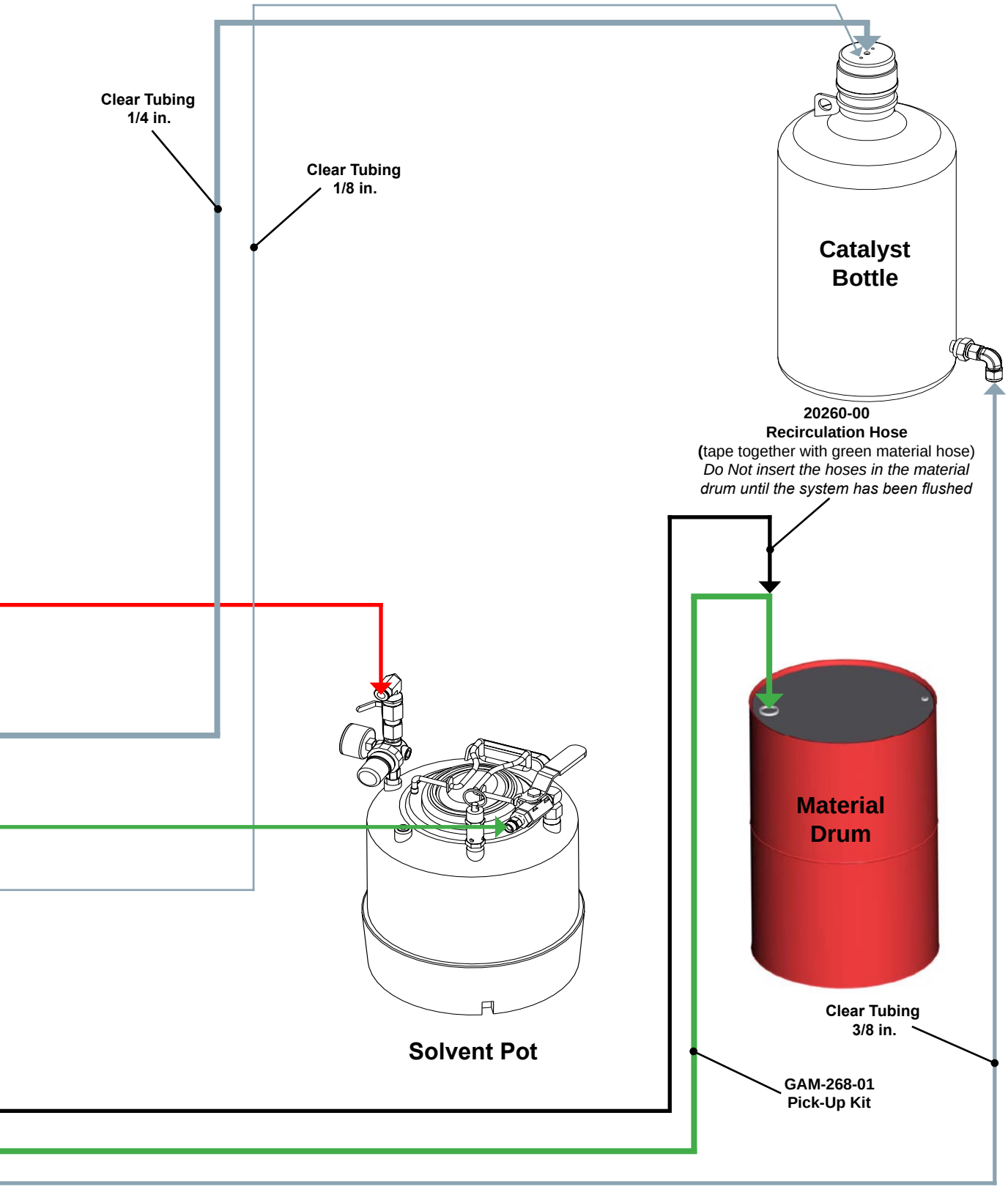
Formula Dispense Gun

26. **a.** Remove the plug from the side of the air manifold and install the regulator kit p/n 22632-00. Be sure to PTFE tape the threads.
b. Attach all hoses and tubing as shown.
c. Connect material hose (20195-xx) with supplied fitting (14626-00).

This diagram is for displaying point to point hook-up ONLY and DOES NOT suggest actual routing of hoses and tubing. All hoses and tubing should be routed neatly, and free of any moving components.

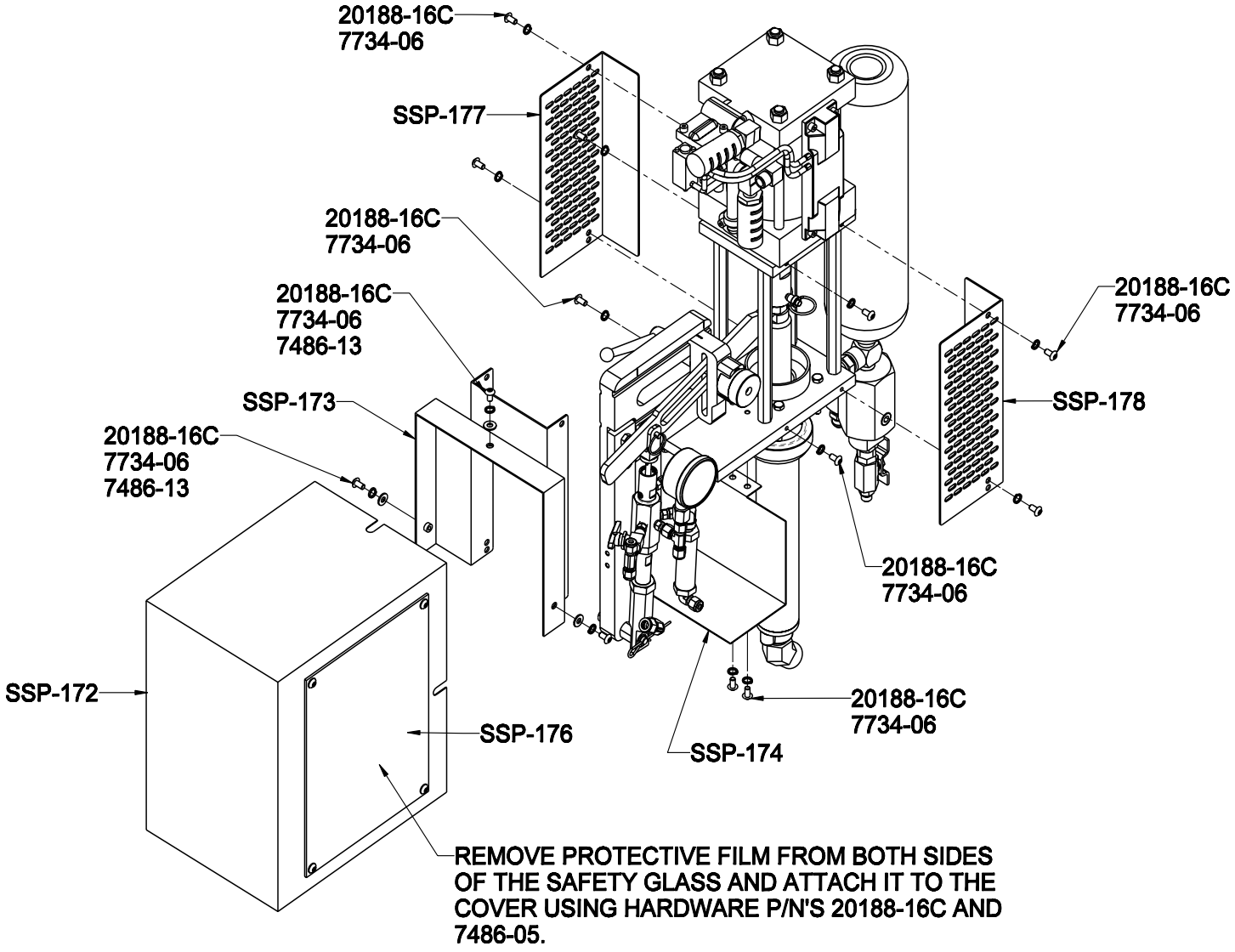


Set-Up


Clear Tubing
1/4 in.
Clear Tubing
1/8 in.
Catalyst
Bottle
20260-00
Recirculation Hose
(tape together with green material hose)
Do Not insert the hoses in the material
drum until the system has been flushed
Material
Drum
Clear Tubing
3/8 in.
GAM-268-01
Pick-Up Kit
Solvent Pot

Set-Up

SSP-175 Safety Guard Kit

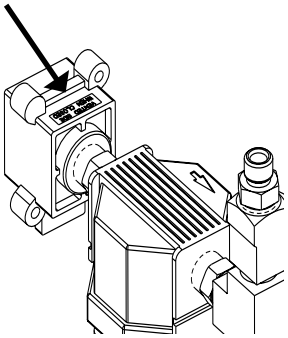


SSP-175		
Part Number	**Description**	**Qty.**
SSP-172	SURROUND GUARD	1
SSP-173	LEFT PUMP GUARD	1
SSP-174	ANGLE BRACKET	1
SSP-176	GUARD WINDOW	1
SSP-177	RIGHT PUMP GUARD	1
SSP-178	RIGHT FRONT PUMP GUARD	1
20188-16C	SCREW	17
7486-05	FENDER WASHER	4
7486-13	WASHER	3
7734-06	LOCK WASHER	13

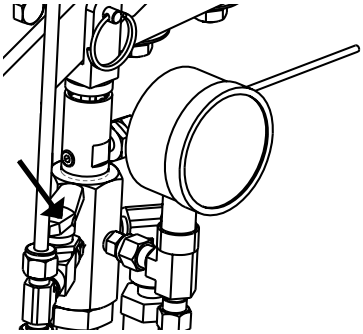
Pressure Relief Procedure

To relieve fluid and air pressures:

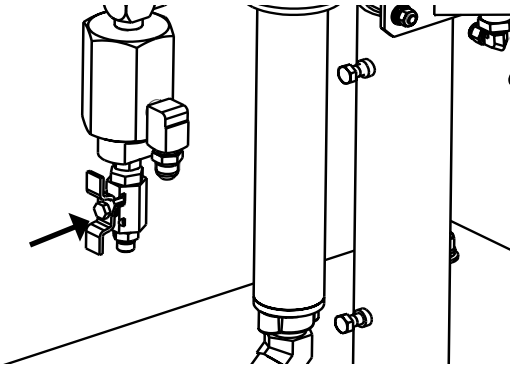
1. Push down Yellow slide valve, P/N 21402-00 to bleed off air to system.



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



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



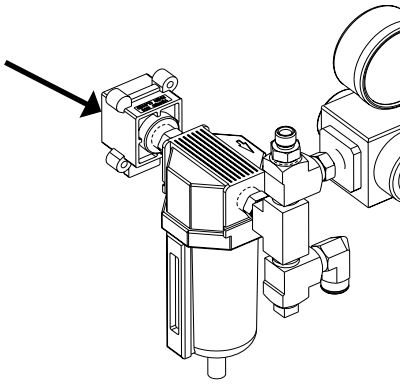
Start-Up

The following assumes that all connections are tight.

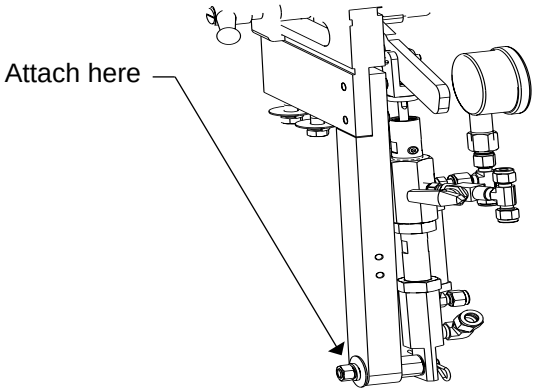
System Start-Up Instructions

1. Select a clean dry air supply.

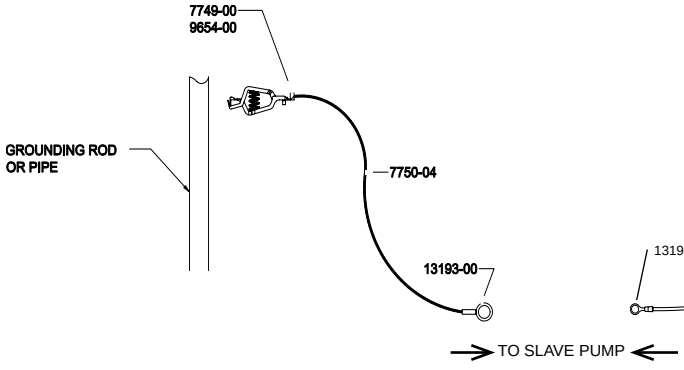
2. Attach a 3/8” or larger air hose to the Air Manifold Inlet. ***Do not use quick disconnect fittings.***



3. Attach grounding clamp assembly, P/N 17440-00, to the slave pump.



4. Securely attach Clamp, P/N 7749-00, to permanently grounded rod or pipe.

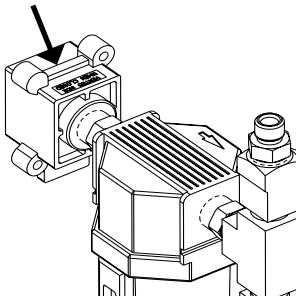


Before turning on main air, check all On/Off Ball Valves, making certain all Valves are in the “Off” position and set all regulators in their “Off” position. (Turn knob counter-clockwise for OFF or reduced pressure setting.)

5. Place the mixing element straight into the front gun housing. (refer to spray gun user manual)

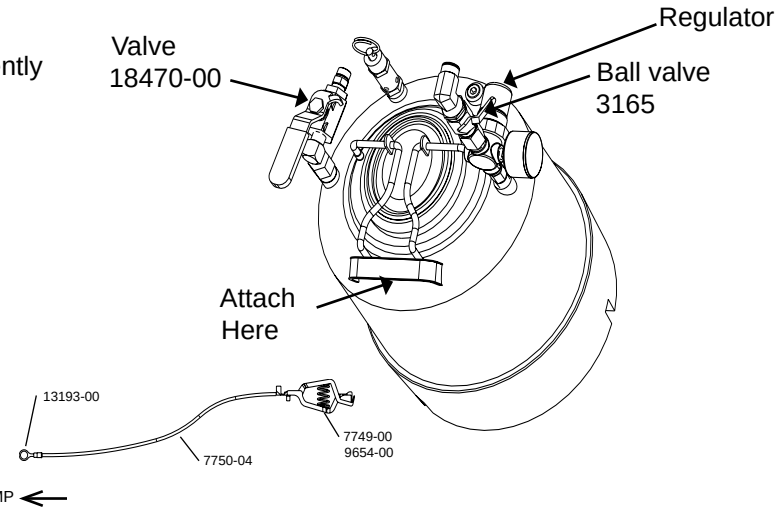
6. Place the retaining nut along with the spray tip and spray tip spacer onto the gun housing. (refer to spray gun user manual)

7. Push the slide valve to the open position.

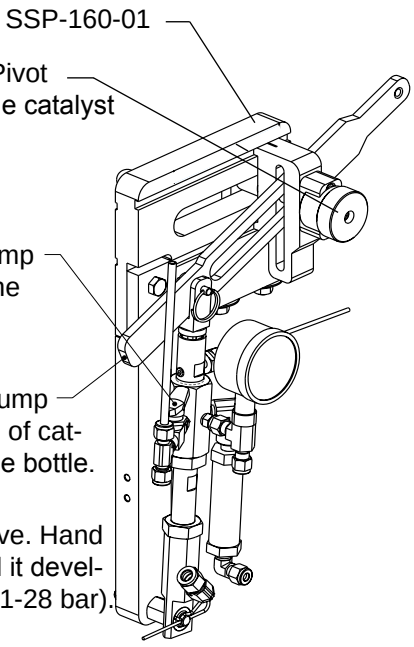


8. Open the air valve p/n 3165 on the solvent tank and adjust the solvent pressure to 90 PSI (6.2 bar). Open the ball valve p/n 18470-05 on the solvent tank. Next open ball valve p/n 23518-00 on the gun to verify that solvent will flow out of the front of the gun through the dispense tip, then close the valve.

Do not exceed 20 PSI (1.4 bar) on the material regulator until a steady material flow has been established.



Start-Up



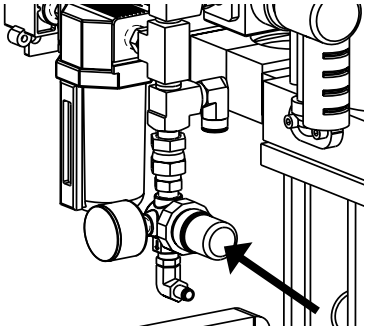
9a. Pull and rotate Pivot knob to disengage the catalyst drive arm.

b. Turn the slave pump yellow ball valve to the open position.

c. Hand prime the pump until a steady stream of catalyst flows back to the bottle.

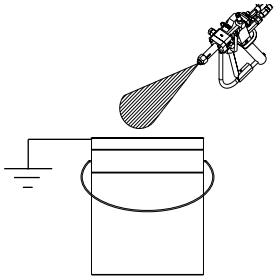
d. Close the ball valve. Hand stroke the pump until it develops 300-400 PSI (21-28 bar).

If you are using the optional Formula gun set the trigger air regulator to 100 PSI (7 bar). The trigger air IS NOT to exceed 100 PSI (7 bar).



10. Trigger the Gun into a container until all the air is purged from the resin side of the system. It may be necessary to Hand stroke the Catalyst Pump several times while the gun is triggered to positively deliver a steady stream of catalyst. Let go of the trigger and hand stroke pump again to develop 300-400 PSI (21-28 bar). “STOP”

a. Solvent flush the gun. “STOP”

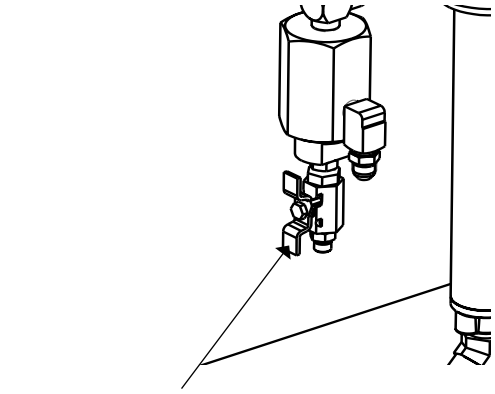


b. Once primed, increase the resin PSI until a desired spray pattern is achieved.

c. After all pressure adjustments have been completed, a finial spray test should be made. Spray a test shot sample on a clean piece of paper. The shot should be approximately five feet in length. You can now check desired gel times and uniformity of curing.

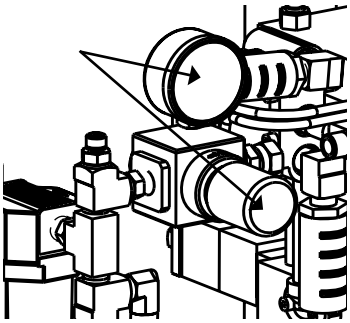
d. Flush the gun thoroughly with solvent after use.

11. Make sure that the resin pump recirculation valve is “off” and that the bypass hose is in back in the the drum. Adjust the resin pump regulator to 20 PSI (1.4 bar) the pump will start to slowly cycle. Allow the pump to “load” the cycle rate should slow indicating the pump is primed. Close the recirculation valve.



Recirculation Valve

Resin Pump Regulator



Do not exceed 20 PSI (1.4 bar) pressure on the Material Regulator until steady material flow has been established.

Shut-down

Shut-Down Instructions

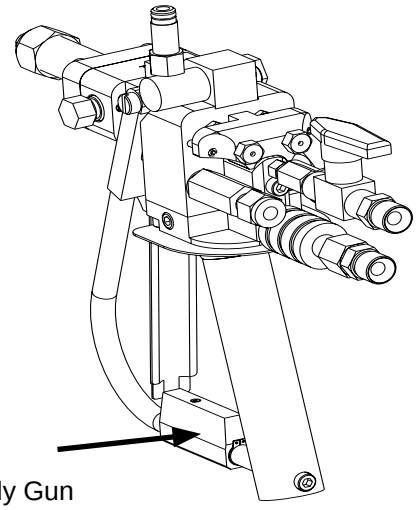
Follow pressure Relief Procedure on page 21.

Notice

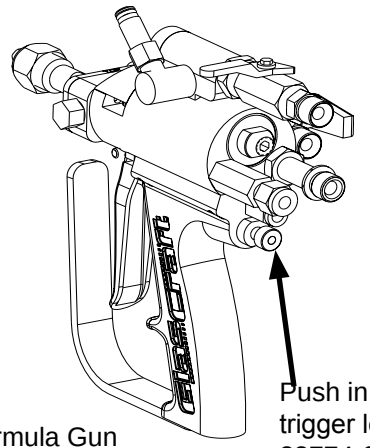
Due to the different O-Ring materials and lubricants used in the Guns never submerge or soak any dispense gun in any type of solvent!

Submerging or soaking any Gun will immediately void the Gun warranty.

1. Activate trigger lock to stop the trigger from being activated. (*Refer to gun manuals if needed.)*



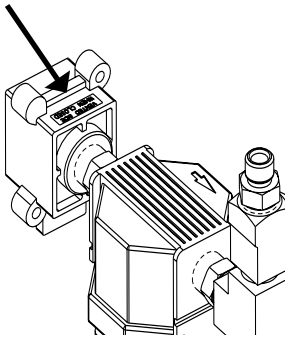
Indy Gun



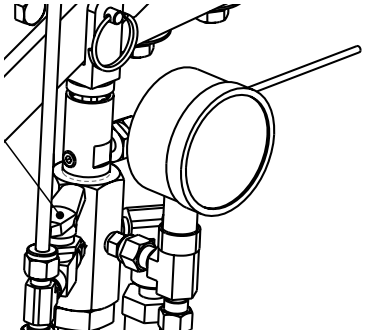
Formula Gun

Push in and rotate trigger lock, p/n: 23774-00.

2. Push down the yellow slide valve, P/N 21402-00 on the inlet air to bleed off air on system.



3. Turn catalyst yellow ball valve, P/N 21228-00 to Open / Recirculation position to dump psi. and close the valve.



4. Pressure should be maintained on the resin hose.

If you are using the Indy gun install the night plug p/n 23527-00.

Refer to gun manuals for service and maintenance.

Parts

Model - Internal Gel-Coat System

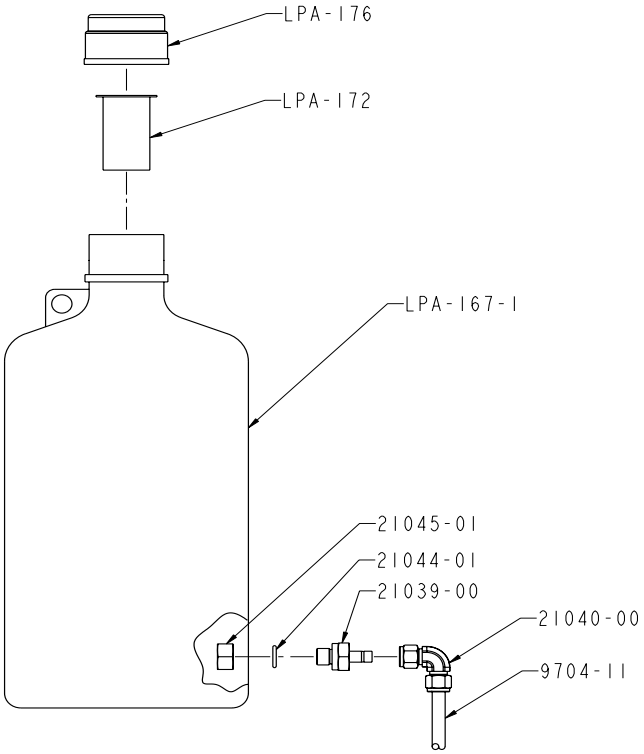
Standard Equipment	
Part Number	**Description**
SSP-160-01	SUPER CATALYST SLAVE PUMP ASSEMBLY
GAM-268-01	MATERIAL PUMP PICK-UP KIT
21694-25	MATERIAL HOSE ASSEMBLY, 25 FT.
17440-00	GROUNDING CLAMP ASSEMBLY
23555-00	AIR MANIFOLD
17798-25	AIR HOSE 25 FT.
20190-00	CATALYST HOSE 25 FT.
21054-01	SOLVENT HOSE 25 FT.
20794-01	SOLVENT TANK
19890-01	MOUNTING CLAMP
18291-01	PORTABLE BASE
663	MAST
20638-00	CASTERS
GC-1317	MANUALS
LPA-165	CATALYST BOTTLE
LPA-170	CATALYST BOTTLE BRACKET
9704-03	TRIGGER AIR TUBING (1/4in. CLEAR, 28ft. FORMULA GUN ONLY)
Pump Options	
Part Number	**Description**
20864-05	MATERIAL PUMP ASSEMBLY, 11:1 RATIO
21780-01	MATERIAL PUMP ASSEMBLY, 17:1 RATIO
22026-01	MATERIAL PUMP ASSEMBLY, 20:1 RATIO

Material Spray Nozzles

See gun manuals for spray tip options.

Sub-Assembly Drawings

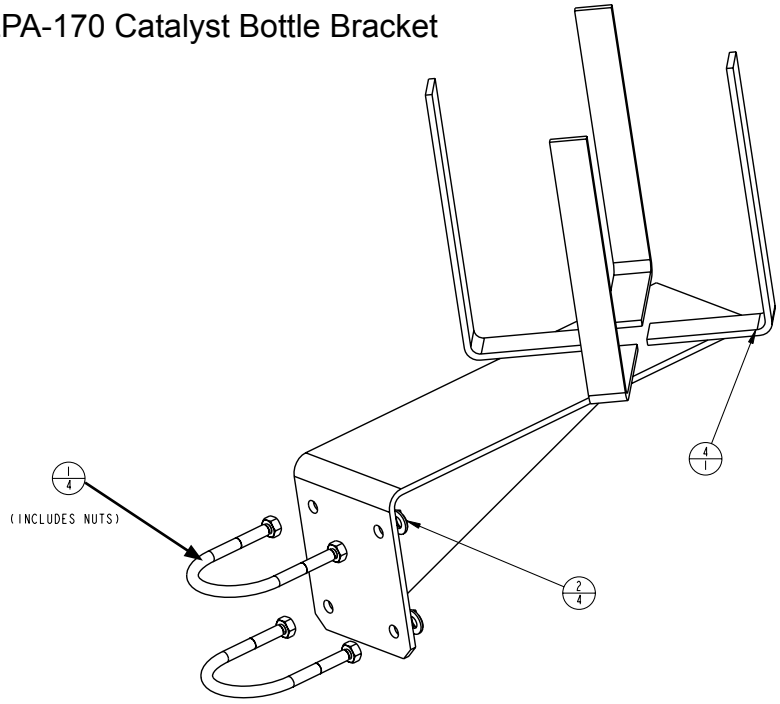
LPA-165 Bottle



Part Number	Description	Qty.
LPA-167-1	BOTTLE	1
LPA-172	SCREEN	1
LPA-176	CAP	1
21039-00	TUBE ADAPTER	1
21040-00	ELBOW FITTING	1
21044-01	SEAL	1
21045-01	HEX NUT	1
9704-11	TUBING	5

REVISION N

LPA-170 Catalyst Bottle Bracket

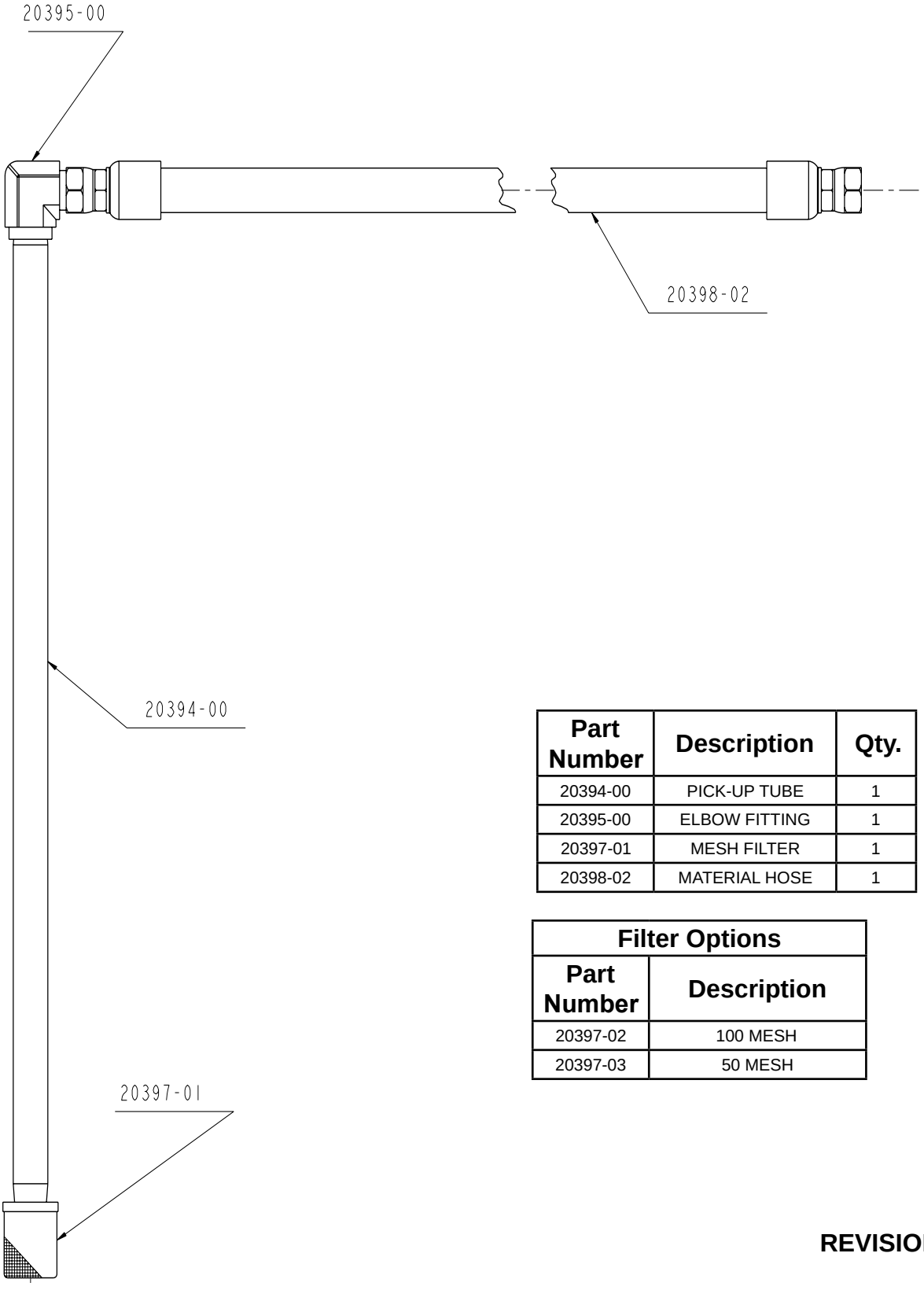


PRODUCT STRUCTURE		
INDEX	PART NUMBER	QTY
1	7486-07	4
2	7734-07	4
3	CP-126	2
4	LPA-169	1

REVISION B

Sub-Assembly Drawings

GAM-268-01 Material Pick-Up Kit



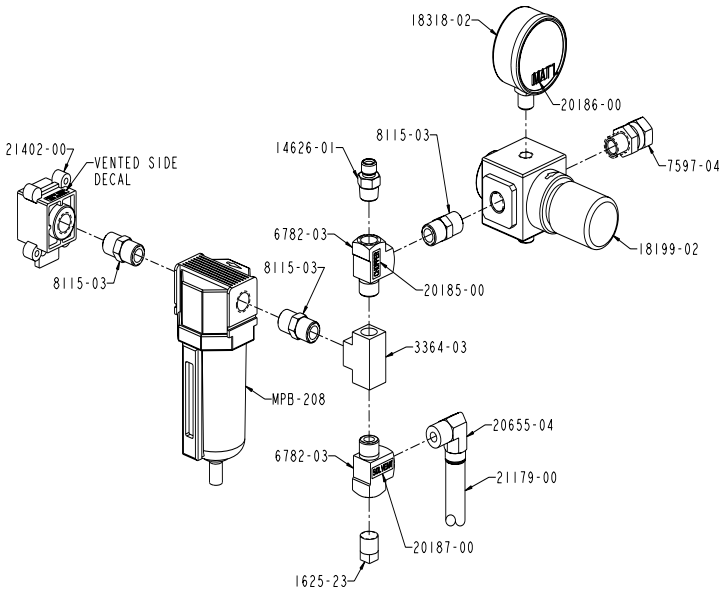
Part Number	Description	Qty.
20394-00	PICK-UP TUBE	1
20395-00	ELBOW FITTING	1
20397-01	MESH FILTER	1
20398-02	MATERIAL HOSE	1

Filter Options	
Part Number	**Description**
20397-02	100 MESH
20397-03	50 MESH

REVISION D

Sub-Assembly Drawings

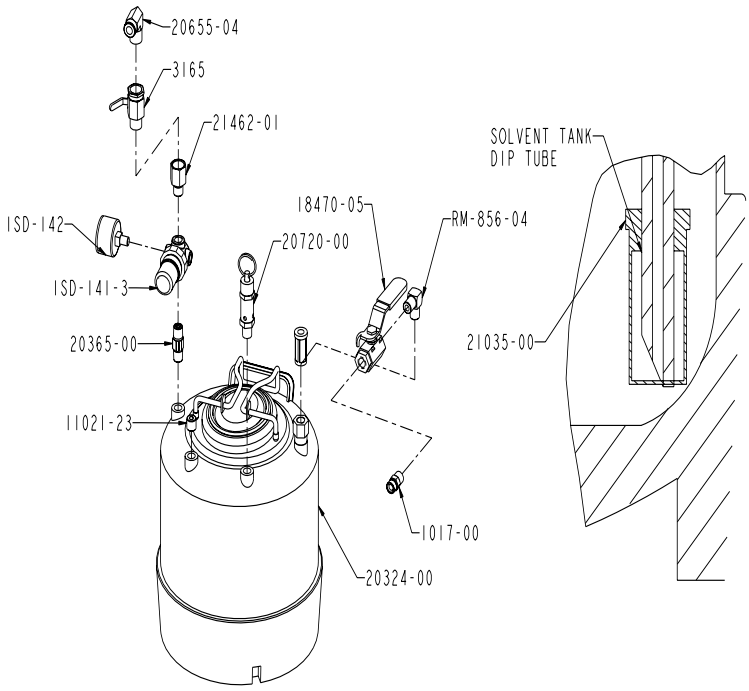
23555-00 Air Manifold



Part Number	Description	Qty.
MPB-208	AIR FILTER	1
14626-01	FITTING	1
1625-23	PIPE PLUG	1
18199-02	AIR REGULATOR	1
18318-02	AIR GAUGE	1
20185-00	CHOPPER DECAL	1
20186-00	MAT'L DECAL	1
20187-00	SOLVENT DECAL	1
20655-04	ELBOW FITTING	1
21179-00	TUBING	10
21402-00	LOCKOUT VALVE	1
3364-03	PIPE TEE	1
6782-03	PIPE TEE	2
7597-04	SWIVEL FITTING	1
8115-03	NIPPLE FITTING	3

REVISION C

20794-01 Solvent Tank



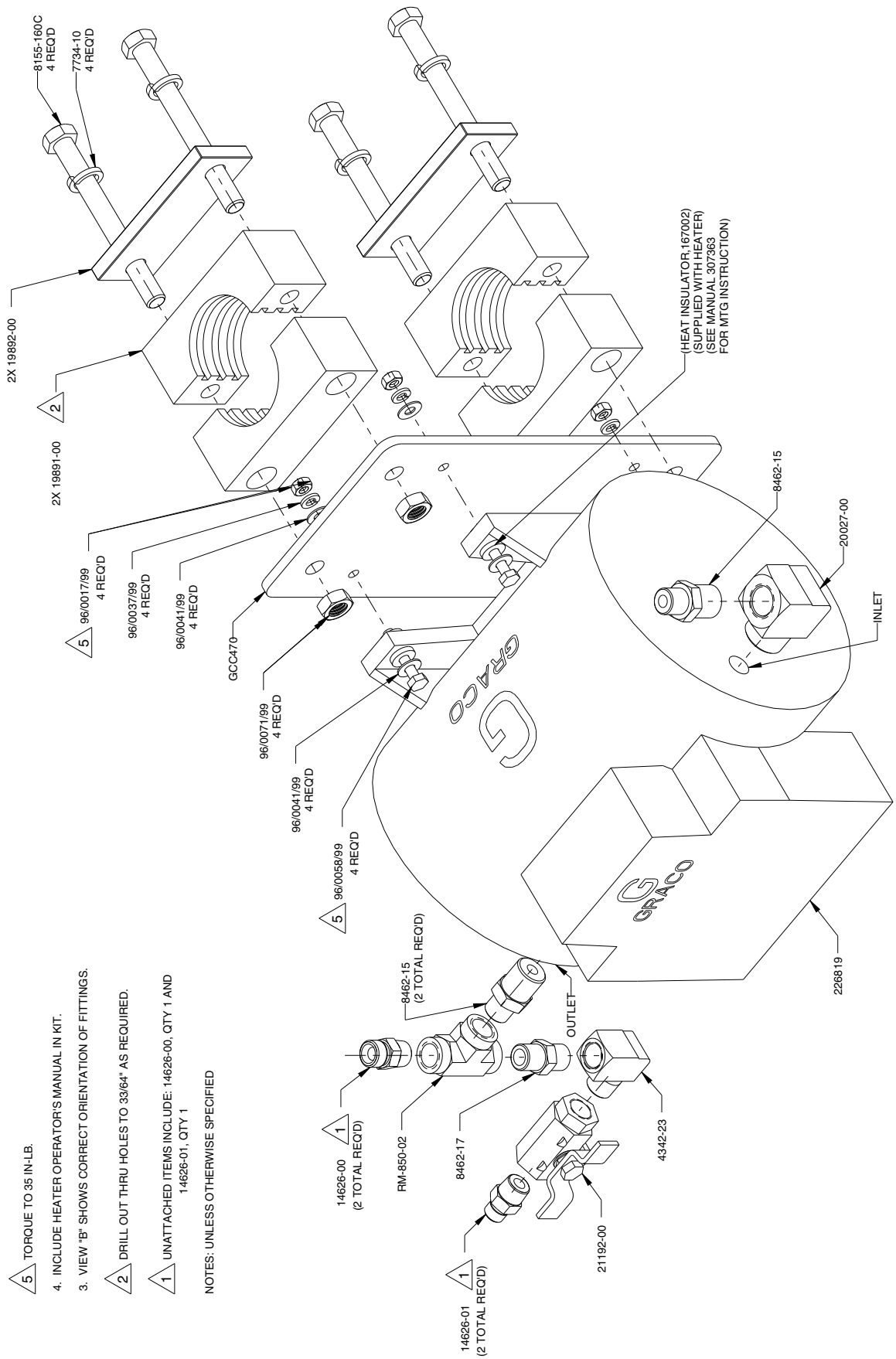
Part Number	Description	Qty.
ISD-141-3	MINI REGULATOR	1
ISD-142	SOLVENT POT GAUGE	1
RM-856-04	ELBOW FITTING	1
1017-00	FITTING	1
11021-23	PIPE PLUG	1
18470-05	BALL VALVE	1
20324-00	SOLVENT TANK	1
20365-00	RELIEF VALVE	1
20655-04	ELBOW FITTING	1
20720-00	PRESSURE RELIEF VALVE	1
21035-00	PICK-UP STRAINER	1
21044-06	SILICONE O-RING	1
21462-01	FITTING	1
3165	BALL VALVE	1
17440-00	GROUNDING CLAMP ASSY.	1

Optional		
Part Number	**Description**	**Qty.**
13867-68	EPR O-RING	1

REVISION D

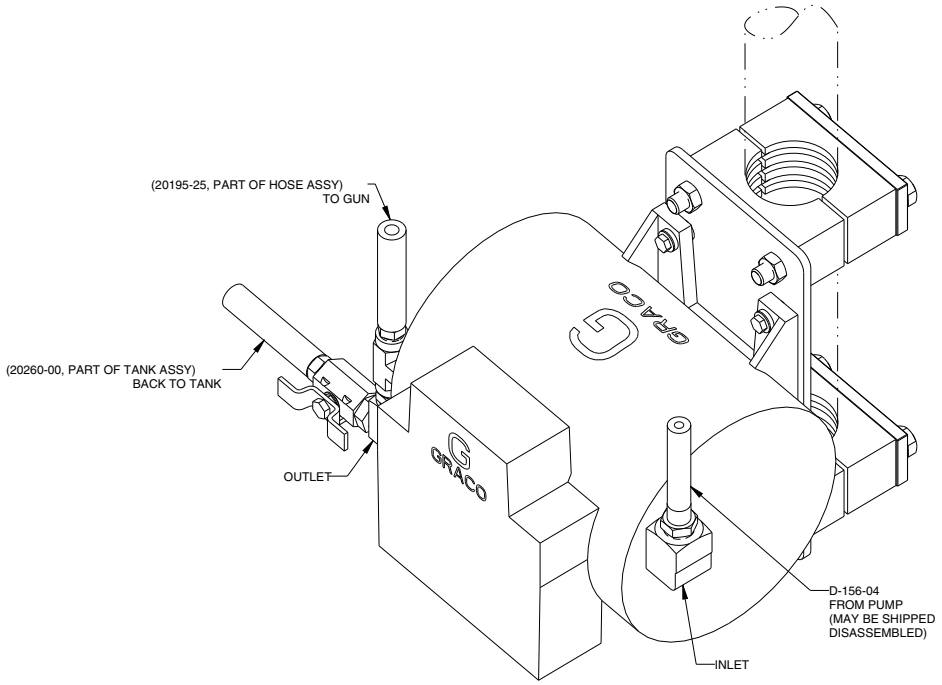
Sub-Assembly Drawings

21460-00 Heater Conversion Kit Assembly



Sub-Assembly Drawings

21460-00 Heater Conversion Kit Assembly



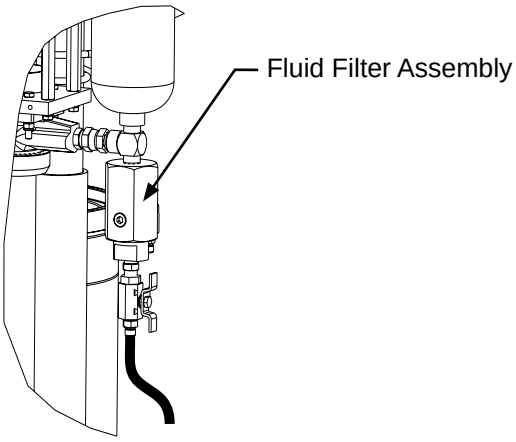
Part Number	Description	Qty
D-156-04	HOSE, ASSY	1
RM-850-02	FITTING, PIPE, TEE, 3/8	1
14626-00	FITTING, 3/8NPT X 3/8 NPS	2
14626-01	FITTING, 3/8NPT X 1/4 NPSM	2
19891-00	CLAMP, PIPE, SET	2
19892-00	PLATE, COVER, CLAMP	2
20027-00	FITTING, ELBOW, 1/2NPTM X 1/2NPTF CP	1
226819	HEATER, VISCON (240 VOLT)	1
21192-00	VALVE, BALL, 2-WAY, 3/8	1
GCC470	PLATE, HEATER, MOUNTING	1
96/0017/99	NUT, HEX, 1/4-20, MS, GR2	4
4342-23	FITTING, ELBOW, 3/8 NPTM X 3/8 NPTF	1
7734-10	WASHER, LOCK, SPRING, 1/2	4
8155-160C	SCREW, HXHD, CS, .500-13X5.000ZP	4
8462-15	FITTING, PIPE, NIPPLE, HEX, 1/2 X 3/8 NPT	2
8462-17	FITTING, PIPE, NIPPLE, HEX, 3/8 X 3/8 NPT	1
96/0071/99	NUT, HEX, 1/2-13, MS, GR2	4
96/0037/99	WASHER, LOCK, SPLIT, 1/4, MS	4
96/0041/99	WASHER, FLAT, 1/4, 0.28 X 0.63 X 0.065	8
96/0058/99	SCREW, HHC, 1/4-20 X 1.50, MS, GR5	4

Maintenance

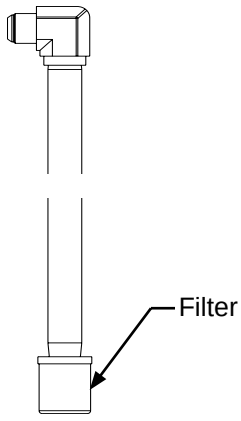
Before performing any maintenance on this Dispense Gun - Follow pressure relief procedures on page 19.

See Indy and Formula gun manuals for daily maintenance and parts replacement procedures.

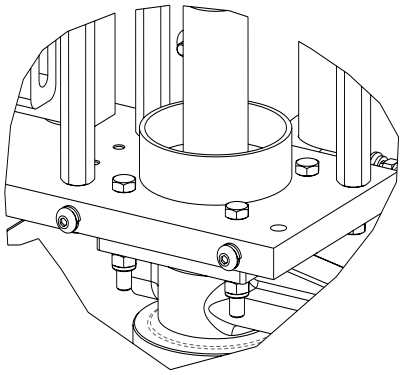
1. Clean filter at resin pump. When opening pump relief valve, make sure all resin and air is evacuated from surge bottle.



2. Inspect and clean filter on pick-up wand.



3. Clean pump lube cup and add fresh pump lube.



Technical Data

Category	Data
Maximum Fluid Working Pressure (20864-05)	1300 psi (9 MPa, 90 bar)
Maximum Fluid Working Pressure (21780-01)	1700 psi (12 MPa, 117 bar)
Maximum Fluid Working Pressure (22026-01)	2000 psi (14 MPa, 138 bar)
Maximum Air Inlet Pressure	100 psi (0.7 MPa, 7 bar)
Typical Flow Rate of Pattern Guns	Refer to gun manual
Maximum Fluid Temperature	100° F (38° C)
A Component (Catalyst) Inlet Size	1/4 in. Tube
B Component (Resin) Inlet Size	1 5/16-12 UN-2A Male
Sound Pressure (20864-05)	84.83 dB(A)
Sound Pressure (21780-01)	85.47 dB(A)
Sound Pressure (22026-01)	84.83 dB(A)
Sound Power, measured per ISO 9614-2 (20864-05)	87.04 dB(A)
Sound Power, measured per ISO 9614-2 (21780-01)	91.66 dB(A)
Sound Power, measured per ISO 9614-2 (22026-01)	87.04 dB(A)
Dimensions	88 L X 32 W X 18 H (2235.2 X 812.8 X 457.2 mm)
Weight	215 lb (98 kg)
Wetted Parts	Catalyst- Chemically coated aluminum, stainless steel, chemically resistant o-rings. Resin- Carbon steel, carbide, chemically resistant o-rings.

Notes

Graco 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.

THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

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.

GRACO MAKES NO WARRANTY, AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IN CONNECTION WITH ACCESSORIES, EQUIPMENT, MATERIALS OR COMPONENTS SOLD BUT NOT MANUFACTURED BY GRACO. These items sold, but not manufactured by Graco (such as electric motors, switches, hose, etc.), are subject to the warranty, if any, of their manufacturer. Graco will provide purchaser with reasonable assistance in making any claim for breach of these warranties. In no event will Graco be liable for indirect, incidental, special or consequential damages resulting from Graco supplying equipment hereunder, or the furnishing, performance, or use of any products or other goods sold hereto, whether due to a breach of contract, breach of warranty, the negligence of Graco, or otherwise.

FOR GRACO CANADA CUSTOMERS

The Parties acknowledge that they have required that the present document, as well as all documents, notices and legal proceedings entered into, given or instituted pursuant hereto or relating directly or indirectly hereto, be drawn up in English. Les parties reconnaissent avoir convenu que la rédaction du présente document sera en Anglais, ainsi que tous documents, avis et procédures judiciaires exécutés, donnés ou intentés, à la suite de ou en rapport, directement ou indirectement, avec les procédures concernées.

Graco Information

TO PLACE AN ORDER, contact your Graco distributor or call to identify the nearest distributor.
Phone: 1-800-746-1334 **or Fax:** 1-330-966-3006

All written and visual data contained in this document reflects the latest product information available at the time of publication. Graco reserves the right to make changes at any time without notice.
This manual contains English. GC-1317
Graco Headquarters: Minneapolis
International Offices: Belgium, China, Japan, Korea
GRACO OHIO INC. 8400 PORT JACKSON AVE NW, NORTH CANTON, OH 44720
Copyright 2008, Graco Ohio Inc. is registered to ISO 9001
www.graco.com
Revised 06/2010