



Part# 1002423-12

8/24/2020

# G100



Made in USA

## OWNERS MANUAL



This manual contains important information concerning the installation and operation of the gun washer listed above. **Read manual thoroughly and keep for future reference.**

### INSTRUCTIONS



#### Herkules Patent Numbers

These products have patent protection under one or more of the following patent numbers:

9422142, 8733508, 8714524, 866247, 8052120, 7070167, 5485860, 5193561, 5174317, 4960142, 4793369 and Patents Pending

Website: [www.herkules.us](http://www.herkules.us)  
E-mail: [info@herkules.us](mailto:info@herkules.us)

Herkules Equipment Corporation  
2760 Ridgeway Court  
Walled Lake, MI 48390-1662 USA

Toll Free: 800-444-4351  
Phone: 248-960-7100  
Fax: 248 960-7109

# Table of Contents

Warranty .....	3
Model Information .....	4
Warnings .....	5-6
Assembly Instructions .....	7-9
Installation .....	10
Operation .....	10-11
Preventive Maintenance .....	12
Troubleshooting .....	13
Drawings with Part Lists .....	14-20
Schematic .....	21

## Herkules Equipment Corporation

A U.S.-based manufacturer, Herkules Equipment Corporation offers a diverse line of products that support multiple industries by improving efficiency, productivity, ergonomics, comfort, and safety in the work environment. The company consists of the three product lines: Herkules, Enkon and BossLifts.

Since 1985, Herkules has designed, engineered and manufactured quality products at our Walled Lake, Michigan facility. Our company supports our products after delivery, with U.S. based customer service, and replacement parts, enabling our customers to proceed with confidence.

To learn more about Herkules, visit <http://herkules.us>. Contact us at [info@herkules.us](mailto:info@herkules.us) with any questions or concerns.

Thank you for purchasing a Herkules product!

# Warranty

**IMPORTANT NOTICE:** if you have a problem with your Herkules product,

## **DO NOT RETURN TO PLACE OF PURCHASE**

Contact Herkules: by phone 1-800-444-4351; by email, [info@herkules.us](mailto:info@herkules.us); or on the web at [herkules.us/contact-us](http://herkules.us/contact-us).

At Herkules we take great pride in the construction of our American-made products, and we stand behind their reliability. Our limited liability warranty coverage for Paint Gun Washers warranties the unit for a period of 12 months. Washer pumps have a separate warranty; the Herkules 338 pump is protected for a period of 2 years from the date of purchase. All other pumps, including rinse pumps, are warranted for 12 months.

This warranty does not apply to equipment damaged from accident, abuse, overload, misuse, negligence, improper installation, abrasive or corrosive materials, or shipping damage.

In the event of product failure, the defective item must be returned, freight prepaid, to the Herkules manufacturing plant for repair or replacement. If repairs are required, Herkules will not be liable for these repairs to take place in the field regardless of the application. Proof of purchase and date of purchase must be confirmed. An RGA\* (Returned Goods Authorization) and written approval from Herkules must be obtained before any goods can be shipped to Herkules. We reserve the right to Determine whether failure is due to defective material, normal wear, and / or other causes.

***There are no warranties which extend beyond the description on the face hereof. Herkules disclaims any warranty of merchantability or fitness for a particular purpose in connection with the Buyer's purchase of any Product under this agreement. Damages are limited to the sales price of the Herkules system. The terms and conditions herein represent the entire agreement between Herkules and the Buyer. Any prior / future representations do not apply.***

\*To obtain a RGA, contact Herkules at 1-800-444-4351 and have the item model, serial numbers, and invoice number if applicable.

Upon receipt of your equipment, please write your purchase information below. Please retain this manual for your records.

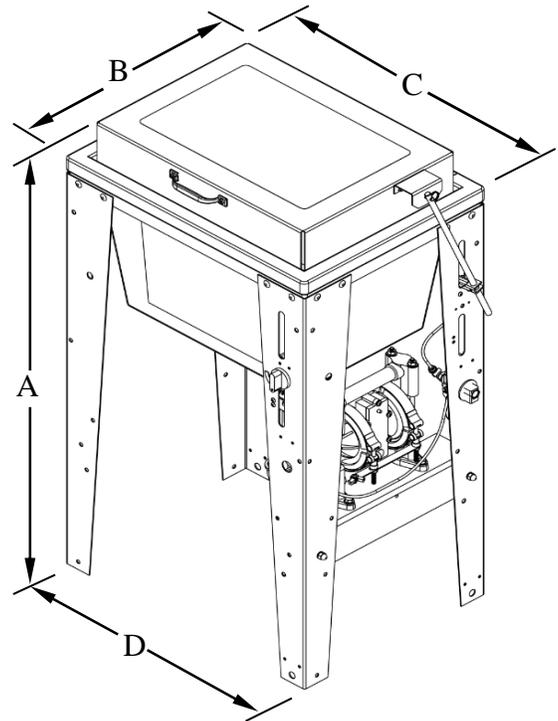
Serial Number \_\_\_\_\_ Model Number \_\_\_\_\_

Purchase Date \_\_\_\_\_ Distributor (if applicable) \_\_\_\_\_

Parts bag contents

# Model Information

Part #	Description	Quantity
001-702	Bolt Hex 1/4-20 x 1/2 Z	2 ea.
001-705	Flat washer 1/4"	2 ea.
002-158	Screw #14 x 3/4 - zinc	2 ea.
002-161	Flat washer #10	5 ea.
008-244	Acorn nut 1/4-20 - nickel	2 ea.
1000252	Cotter pin	1 ea.
1000652	Clevis pin 1/4 dia.	1 ea.
1002423	Owner's Manual	1 ea.
11130	Slotted plug - yellow	1 ea.
11957	Actuator	1 ea.
53B	Stem support female	1 ea.
83	Hex bolt 1/4-20 x 1 - zinc	2 ea.
84	Hex nut 1/4-20 - zinc	2 ea.
85	Lock washer 1/4"	4 ea.
C9A	Nipple 1/8 NPT x 4-1/2	1 ea.
M5	Tube 5/32 blue	27 in.
M5-BLACK	Tube 5/32 black	9 in.
M5-NEUTRAL	Tube 5/32 clear	11 in.
M230-002	Knob for timer	1 ea.
M230-005	Spacer 1/2" Nylon	1 ea.



**NOTE:** Dimensions listed are overall measurements.

\*Customer should review and verify all parts are present before starting assembly

Model	Description	Weight (lbs/kg)	Dimensions (in/mm)			
			A	B	C	D
G100	One gun, one cup paint gun washer equipped with diaphragm pump, filter-regulator and timer. Cleans exclusively either solvent or water based paints.	44.5 20.2	35.625 (905)	16.75 (425.5)	22.5 (571.5)	20.375 (517.5)

## Warning Symbol



This symbol alerts you to the possibility of serious injury or death if you do not follow the instructions.

## Caution Symbol



This symbol alerts you to the possibility of damage to or destruction of equipment if you do not follow the instructions.



## WARNING



### EQUIPMENT MISUSE HAZARD

Equipment misuse can cause the equipment to rupture, malfunction, or start unexpectedly and result in serious injury.

- This equipment is for professional use only.
- Read all instruction manuals, tags, and labels before operating the equipment.
- Use the equipment only for its intended use.
- Do not alter or modify this equipment.
- Do not exceed the maximum working pressure of the lowest rated system component.
- Do not operate the gun washer at a pressure above the maximum working pressure rating of the gun(s) being cleaned.
- Route the hoses away from traffic areas, sharp edges, moving parts, and hot surfaces.
- Do not use the hoses to pull the equipment.
- Do not move pressurized equipment.
- Use fluids or solvents that are compatible with the equipment wet parts. Read the fluid and solvent manufacturer's warnings.
- Comply with all applicable local, state and national fire, electrical and other safety regulation.



### PRESSURIZED EQUIPMENT HAZARD

Spray from hose leaks, ruptured components, or from operating the gun washer with an open lid can splash fluid in the eyes or on the skin and cause serious injury.

- A safety device has been installed to shut off the pump when the gun washer lid is opened.  
**Do not tamper with, or alter, this device.**
- Open the gun washer lid slowly.
- Do not prop the gun washer lid open with an object or by any other means.
- Do not stop or deflect fluid leaks with your hand, body, glove, or rag.
- Tighten all fluid connections before operating the equipment.
- Replace worn, damaged, or loose parts immediately.



## WARNING



### FIRE AND EXPLOSION HAZARD



Improper grounding, poor air ventilation, open flames, or sparks can cause a hazardous condition and result in fire or explosion and serious injury.

- Ground the equipment. See Installation section for grounding procedure.
- Provide fresh air ventilation to avoid the build up of flammable fumes from the cleaning solution.
- Extinguish all open flames or pilot lights in the gun washer area.
- Disconnect all electrical equipment in the gun washer area.
- Keep the gun washer area free of debris, including cleaning solutions, rags, and gasoline.
- Do not turn on any light switch in the gun washer area while operating or if fumes are present.
- Do not smoke in the gun washer area.
- Do not operate a gasoline engine in the gun washer area.
- Follow the gun manufacturer's solvent and other cleaning recommendations.
- Use solvent with the highest possible flash point.
- If there is any static sparking while using the equipment, **stop operation immediately**. Identify and correct the problem.
- Drain the cleaning solution into a proper storage container when gun washer(s) is not in use.



### TOXIC FLUID HAZARD

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

- Know the specific hazards of the fluid you are using. Read the fluid manufacturer's warnings.
- Store hazardous fluid in an approved container. Dispose of hazardous fluid according to all local, state and national guidelines.
- Wear the appropriate protective clothing, gloves, eyewear and respirator.
- Pipe and dispose of the exhaust air safely. If diaphragm fails, the fluid may be exhausted along with the air.

# Assembly Instructions

## Stand and tub connections

### STEP 1

Position the pump mount bracket between the timer leg and the filter/regulator leg of the stand assembly. Attach the pump mount bracket to the stand using (2) 1/4-20 x 1/2 hex bolts, (2) #10 flat washers, (2) 1/4" lock washers and (2) 1/4" acorn nuts per leg [see fig.1].

### STEP 2

Attach the pump to the stand using the (2) 1/4-20 x 1 hex bolts, (2) 1/4" flat washers, (2) 1/4" lock washers and (2) 1/4" hex nuts per leg [see fig.1].

## Fluid hose connections

### STEP 3

Connect the drain hose assembly to the hose barb (on the bottom of the tub) and tighten. This connection can be easily disconnected when inserting into a 5-gallon can. [see fig.2].

**Ensure bulkhead DOES NOT TURN when tightening.**

### STEP 4

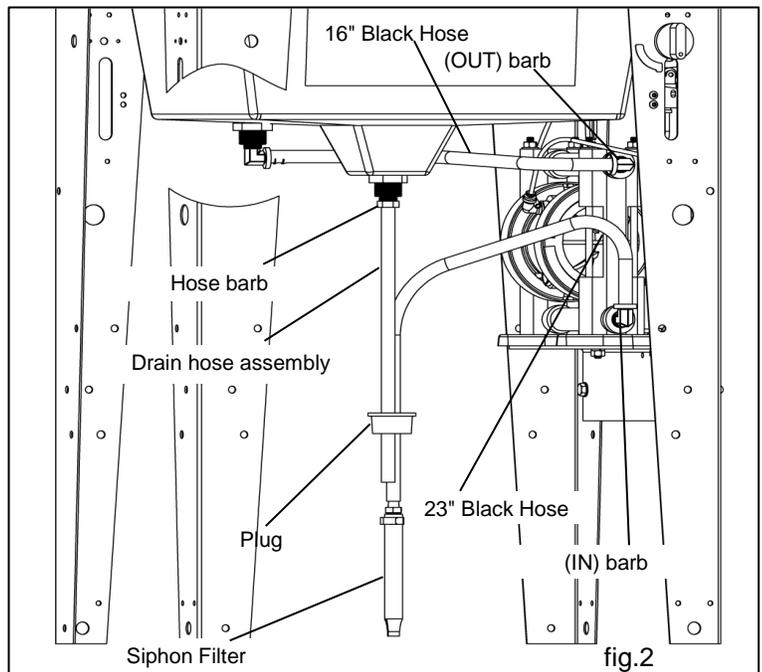
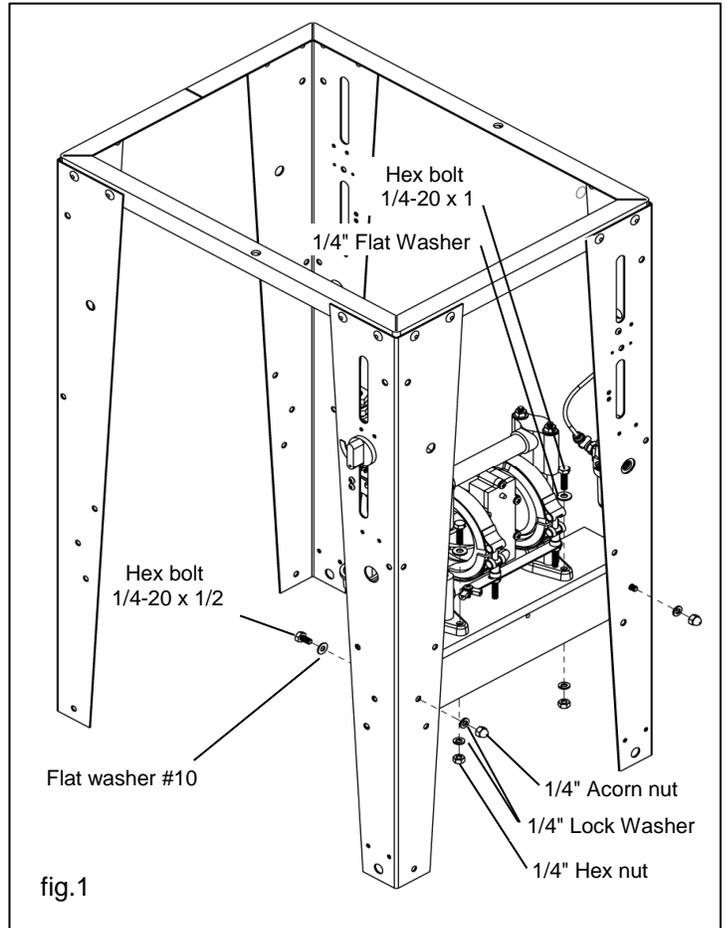
Attach the siphon filter to the 23" length of black hose by inserting the barb into the end of the hose. Slide the yellow slotted plug over the opposite end of the hose so that the threads are in the direction of the filter [see fig.2].

### STEP 5

Attach the other end of the 23" hose to the lower (IN) 90° barb on the pump [see fig.2].

### STEP 6

Run the 16" black hose from the upper (OUT) 90° barb on the pump to the 90° barb at the rear-left corner on the underside of the tub [see fig.2].



# Assembly Instructions

## Air hose connections

### STEP 7

Connect the black 5/32" air hose between the regulator and the air-in port of the limit valve located on the rear leg of the gun washer. Press tubing in through the collar until seated. Pull firmly on hose to test for a tight connection. [see fig.3].

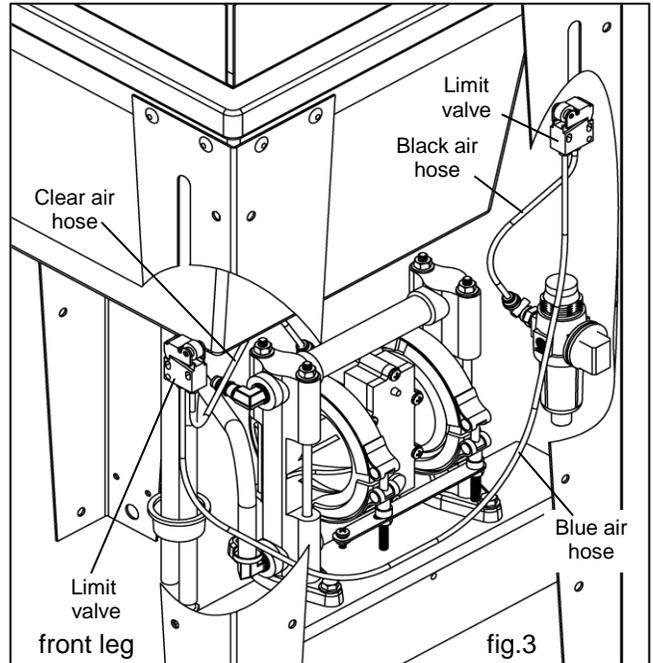
*Note: Air-in port of limit valve is the port opposite the roller.*

### STEP 8

Connect the blue 5/32" air hose between the air-in port of limit valve (located on the front leg) and the air-out port of the limit valve (located on the rear leg of the gun washer). Press tubing in through the collar until seated. Pull firmly on hose to test for a tight connection [see fig.3].

### STEP 9

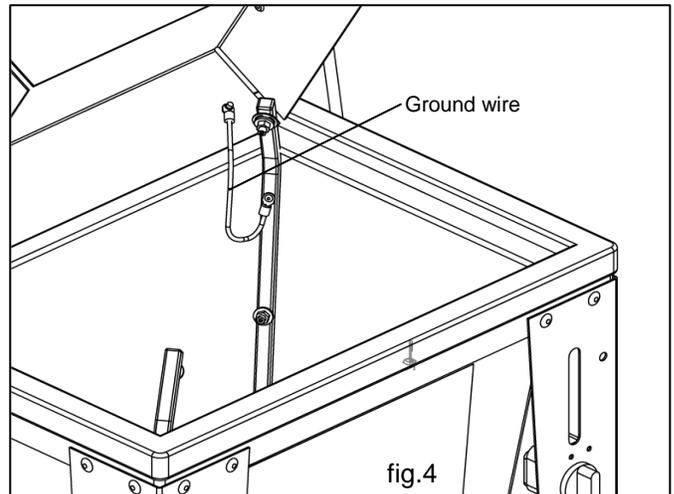
Connect the clear 5/32" air hose between the pump and the air-out port of the limit valve (located on the front leg of the gun washer). Press tubing in through the collar until seated. Pull firmly on hose to test for a tight connection. [see fig.3].



## Grounding the lid

### STEP 10

Verify grounding wire is attached to both the spray manifold and the lid [see fig.4].



# Assembly Instructions

## Connecting lid rod and actuator linkage

### STEP 11

Slide the actuator over the lid rod and hand tighten approx. 2" from the end of the rod. Insert the actuator into the large slot in the right rear leg [see fig.6].

### STEP 12

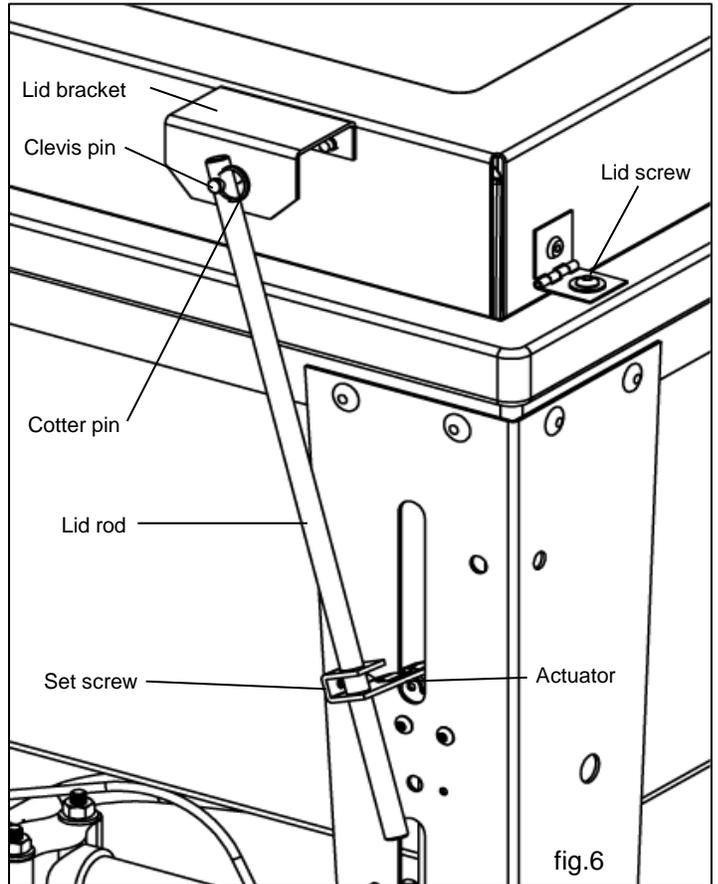
Attach the lid rod to the lid bracket using the 1/4" clevis pin and circular cotter pin supplied [see fig.6].

### STEP 13

To adjust the actuator, close the lid and loosen the set screw on the actuator. Slide the actuator down until it completely closes the limit valve and retighten the set screw [see fig.6].

*Note: It is necessary for the roller switch to be completely engaged for the pump to operate properly. Be sure that the actuator is absolutely secure and at the lowest possible point.*

*If the pump is operating slowly, check the actuator first.*



## Final Assembly

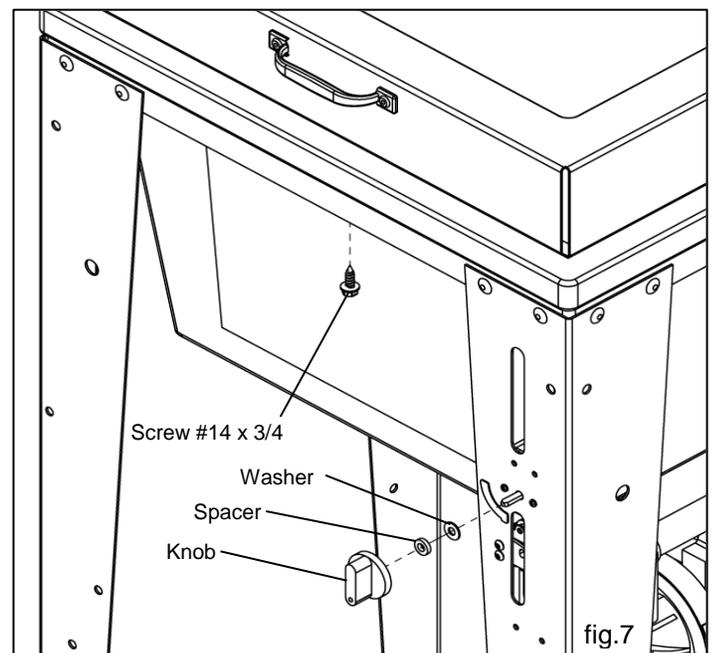
### STEP 14

Using a 3/8" hex socket with either a ratchet or power drill, drive the (2) #14 screws through the two holes in the frame and into the underside of the tub's lip [see fig.7].

*Note: Be sure to provide pressure down from the top of the tub while driving the screws. Do NOT over-tighten.*

### STEP 15

Install the timer knob on the protruding shaft on the front right leg by first using (1) #10 flat washer, followed by (1) 1/2" OD nylon spacer, then slide the knob over the shaft [see fig.7].



# Installation

## Installing the Gun Washer

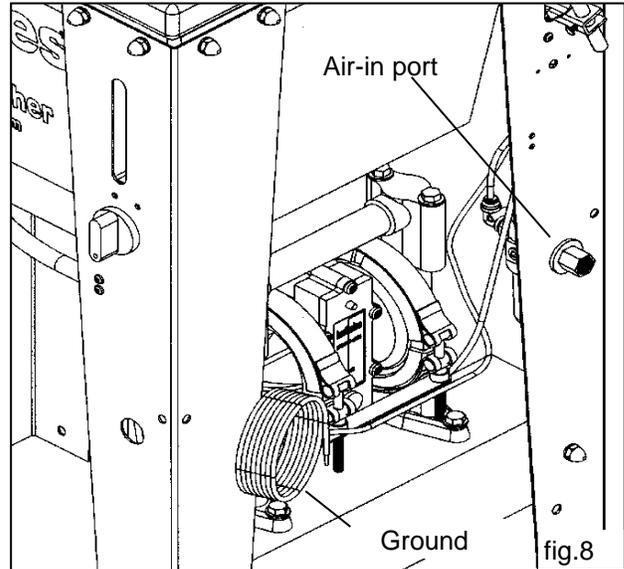
- 1) Place gun washer on a level surface in a properly ventilated paint mixing room or paint booth.

## Grounding the Gun Washer

- 1) Connect the ground wire on the gun washer's pump to a true earth ground.
- 2) Ground all equipment used or located in the gun washer area.

## Connecting the Air Line

- 1) Install a 1/4 in. npt male coupler, that is compatible with the quick disconnect of your air supply line, into the air-in port of the filter/regulator, located on the right rear leg [see fig. 8].
- 2) Connect air line with at least 75 psi to the coupler. Filter/regulator is preset. **DO NOT ADJUST.**



# Operation

## Connecting the Cleaning Solution to the Washer

- 1) Disconnect the drain hose from the flare connector on the bottom of the tank.
- 2) Insert the drain hose and siphon tube into a fresh 5 gallon cleaning solution can and secure the plug in the opening.
- 3) Reconnect the drain hose and tighten.
- 4) The can must contain at least 4 gallons of solution to pump properly. Herkules strongly recommends using a high quality cleaning solution.

## Preparing the Equipment to be washed

- 1) Remove paint cup or paint line and the air line from the paint gun.
- 2) Drain excess paint from cup and gun.
- 3) Remove all gauges and regulators.
- 4) Lock the gun trigger in the open position by placing the trigger lock around the gun handle and trigger (see fig.10).

## Placing Equipment in the Gun Washer

To clean guns not mentioned here, use the long or short stem supports as needed [see fig. 10]. For questions or adapter kits, contact your paint gun washer distributor.

### Siphon Feed Guns

Place the gun siphon tube on the short stem support.

### Gravity Feed Guns (HVLP)

Place the long stem support over the short stem support. Place paint inlet of gun on long stem support. Place the air cap assembly over the air inlet of the gun to prevent solution from entering the passage.

### Pressure Feed Guns

Place long stem support over the short stem support. Place paint inlet of gun on long stem support.

### Pots and Cups

Place a pot or a cup on the 4-armed platform.

## CAUTION

All pressure gauges must be removed before placing the equipment in the gun washer to avoid damaging the gauges.

# Operation

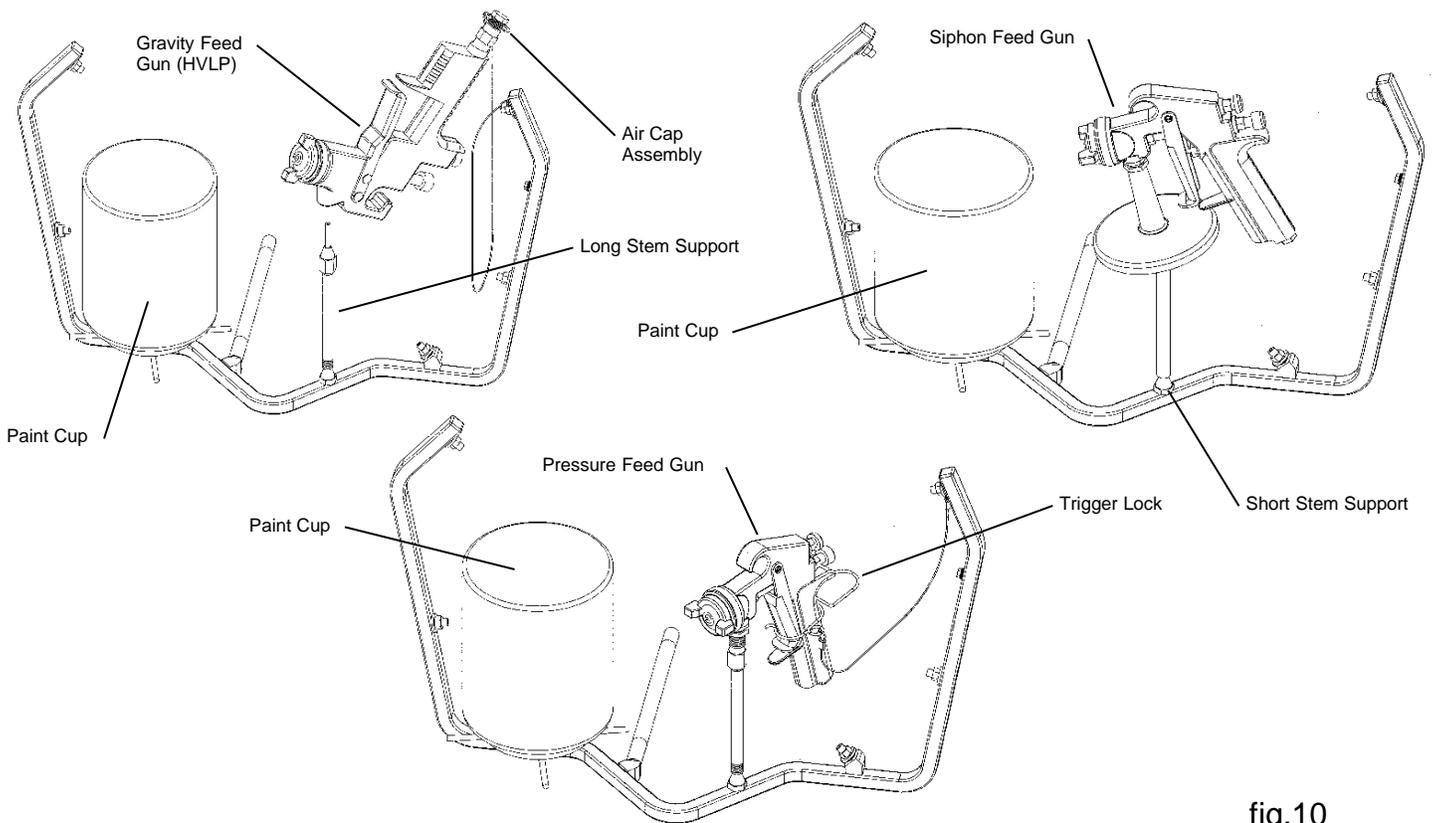


fig.10

## Operating the Gun Washer

- 1) Make sure wire trigger locks and other accessories are inside the gun washer tank.
- 2) Place equipment in the tank according to the diagrams shown in fig.10.
- 3) Close the gun washer lid.
- 4) Turn the timer knob clockwise 90 degrees to start the gun washer. The gun washer will run for 90 seconds. Turning the timer knob less than 90 degrees will reduce the timing cycle. Paint equipment will clean in 60 to 90 seconds.
- 5) If the lid is opened prior to the end of the timing cycle, the safety air cutoff switch will stop the gun washer. The gun washer will start again when the lid is closed if time remains on the timer.

*Note: Open the lid slowly to minimize vapor escape.*

- 6) Remove the equipment from the gun washer and wipe off any remaining cleaning solution.

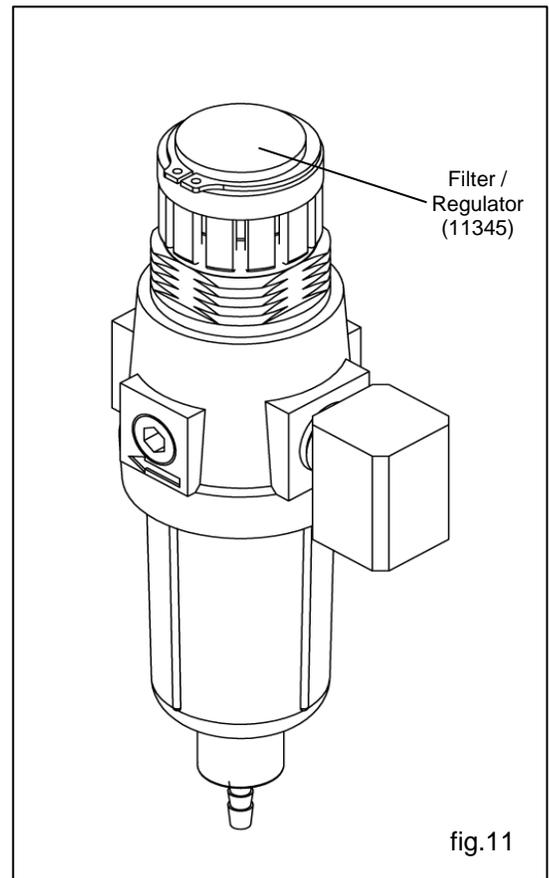
# Preventive Maintenance

To keep your machine working efficiently, please follow these directions.

- 1) ALWAYS drain excess paint from cup or pot before placing in gun washer.
- 2) Drain paint sludge from gun washer tank weekly. Do this after a weekend so that it has settled. Open ball valve and drain until clear solution flows. Add cleaning solution to fill 1" above intake filter.
- 3) Replace Filter/Regulator yearly. (#11345)
- 4) Change cleaning solution completely when objects being cleaned become tacky to the touch.
- 5) Clean inside of tub and intake filter before filling with cleaning solution.

## CAUTION

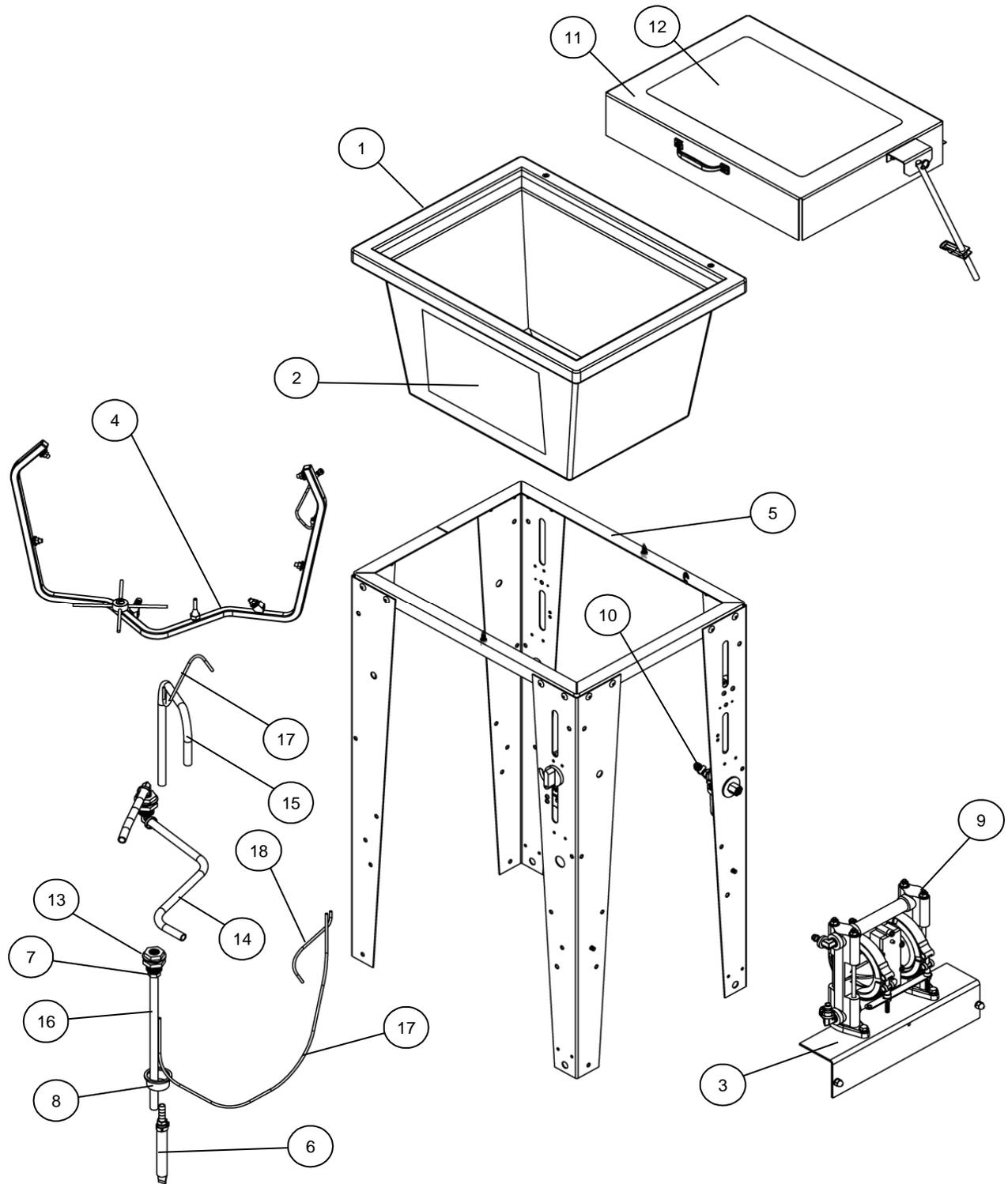
Do not change the setting of the filter/regulator. This could damage the filter/regulator or pump.



# Troubleshooting

Problem	Possible Solution
Gun washer will not turn on.	<ol style="list-style-type: none"> <li>1 Make sure the air line is properly connected with at least 75 psi. (Air pressure is regulated at 75 psi.)</li> <li>2 Make sure lid is fully closed. Make sure the lid rod actuator is making full contact with the limit valve on the right rear leg.</li> <li>3 Check all air connections to ensure that there are no leaks.</li> <li>4 Make sure the timer cam is engaging the limit valve on the right front leg.</li> <li>5 Make sure timer is on and functioning correctly.</li> </ol>
Gun washer turns on but pumps slowly or not at all.	<ol style="list-style-type: none"> <li>1 Make sure intake filter is not clogged. If clogged, clean or replace.</li> <li>2 Make sure the air line is properly connected with at least 75 psi. (Air pressure is regulated at 75 psi.)</li> <li>3 Check all air connections to ensure that there are no leaks.</li> <li>4 Make sure there is at least 4 gallons of cleaning solution in the can.</li> <li>5 Make sure the siphon hose is far enough into the can to draw cleaning solution.</li> <li>6 Make sure lid is fully closed. Make sure the lid rod actuator is making full contact with the limit valve on the right rear leg.</li> <li>7 Make sure manifold nozzles and stem supports are not clogged.</li> </ol>
Gun washer will not shut off	<ol style="list-style-type: none"> <li>1 Make sure timer cam is moving. If it's not, slightly loosen the nuts holding the limit valve on the right front leg of the stand. Reposition valve and tighten nuts.</li> <li>2 Make sure limit valves located on the right front leg or right rear leg of the stand are not stuck in closed position.</li> </ol>

# G100 Parts Layout

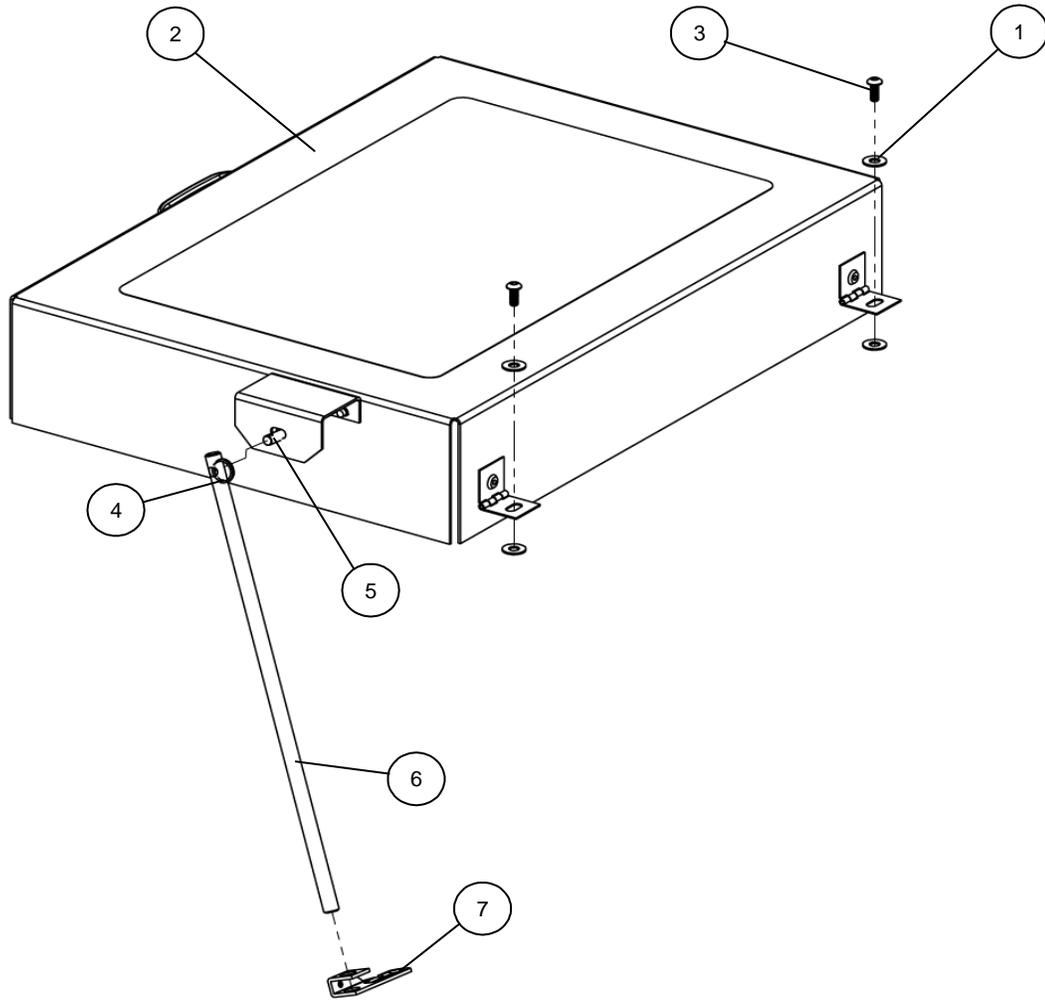


# G100 Parts Layout

	<b>Part #</b>	<b>Description</b>	<b>Quantity</b>
1	19278	Tub Assembly	1 ea.
2	1001706	Front Decal	1 ea.
3	11958	Pump Mounting Bracket	1 ea.
4	12129	Manifold Assembly	1 ea.
5	13981	Stand Assembly for G100	1 ea.
6	11243	Filter Assembly	1 ea.
7	1002654	Drain Hose Assembly	1 ea.
8	11130	Plug Slotted - Nylon	1 ea.
9	12018	Pump Assembly	1 ea.
10	11345	Filter / Regulator	1 ea.
11	19279	Lid Assembly	1 ea.
12	1001708	Lid Sticker	1 ea.
13	1002644	Bulkhead with Nut - Brass	2 ea.
14	64PE	Hose 1/2 OD x .062 Black PE	16 in.
15	64PE	Siphon Hose 1/2 OD x .062 Black PE	23 in.
16	64PE	Hose 1/2 OD x .062 Black PE	5.75 in.
17	M5	Tube 5/32 - Blue	27 in.
18	M5-BLACK	Tube 5/32 - Black	9 in.
19	M5-NEUTRAL	Tube 5/32 - Neutral	11 in.

**Note:** For parts shown but not identified refer to assembly layouts on pages 16-21.

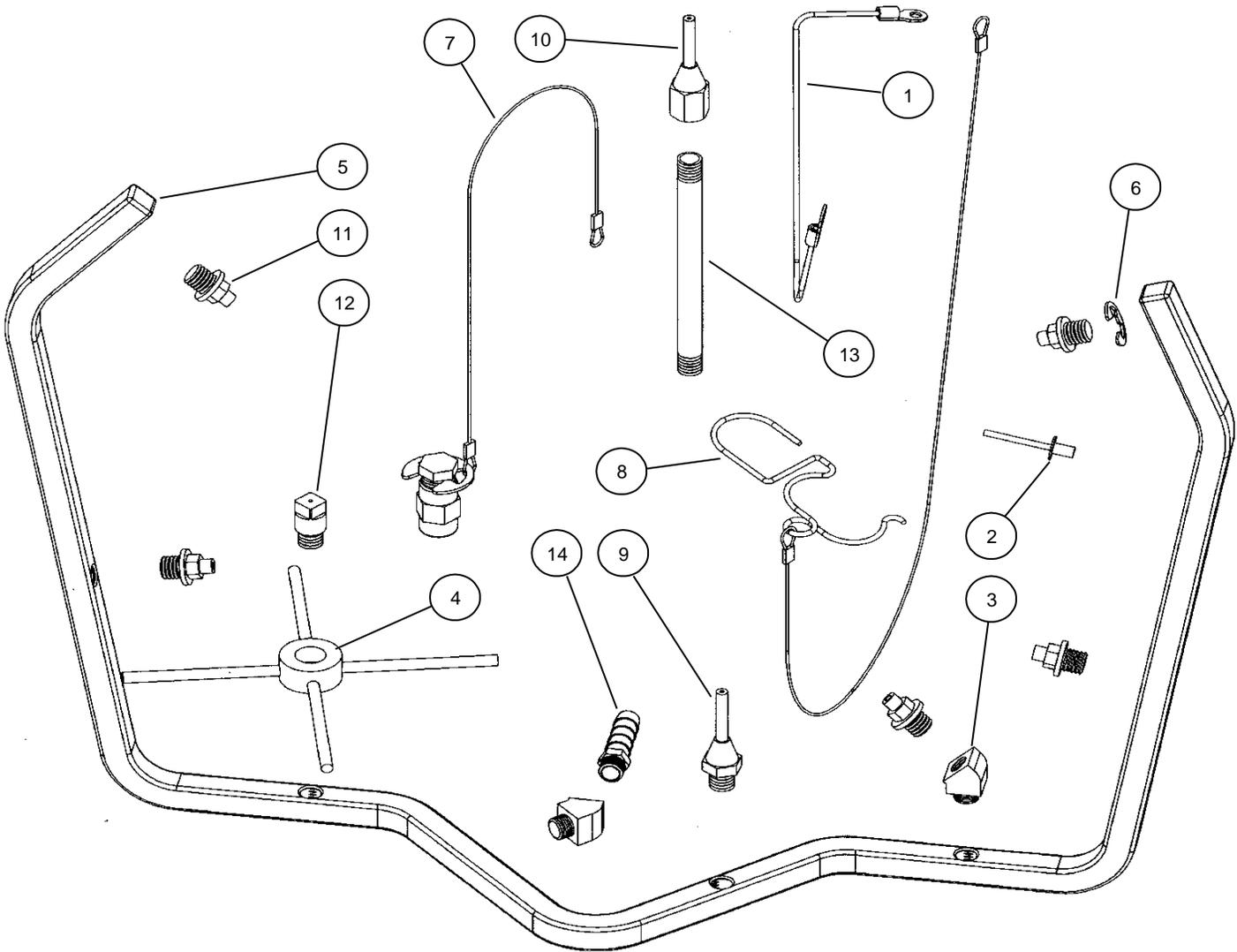
# G100 Lid Layout



Part #	Description	Quantity
1	002-161 Washer Flat #10 USS - Zinc	4 ea.
2	19279 Lid Assembly	1 ea.
3	005-155 Screw 10-32 x 3/8 - Black	2 ea.
4	1000252 Cotter Pin	1 ea.
5	1000652 Clevis Pin 1/4 dia.	1 ea.
6	1002571 Actuator Rod	1 ea.
7	11957 Actuator	1 ea.

**Note:** Parts are shown for reference purposes only and are not necessarily part of a Herkules assembly.

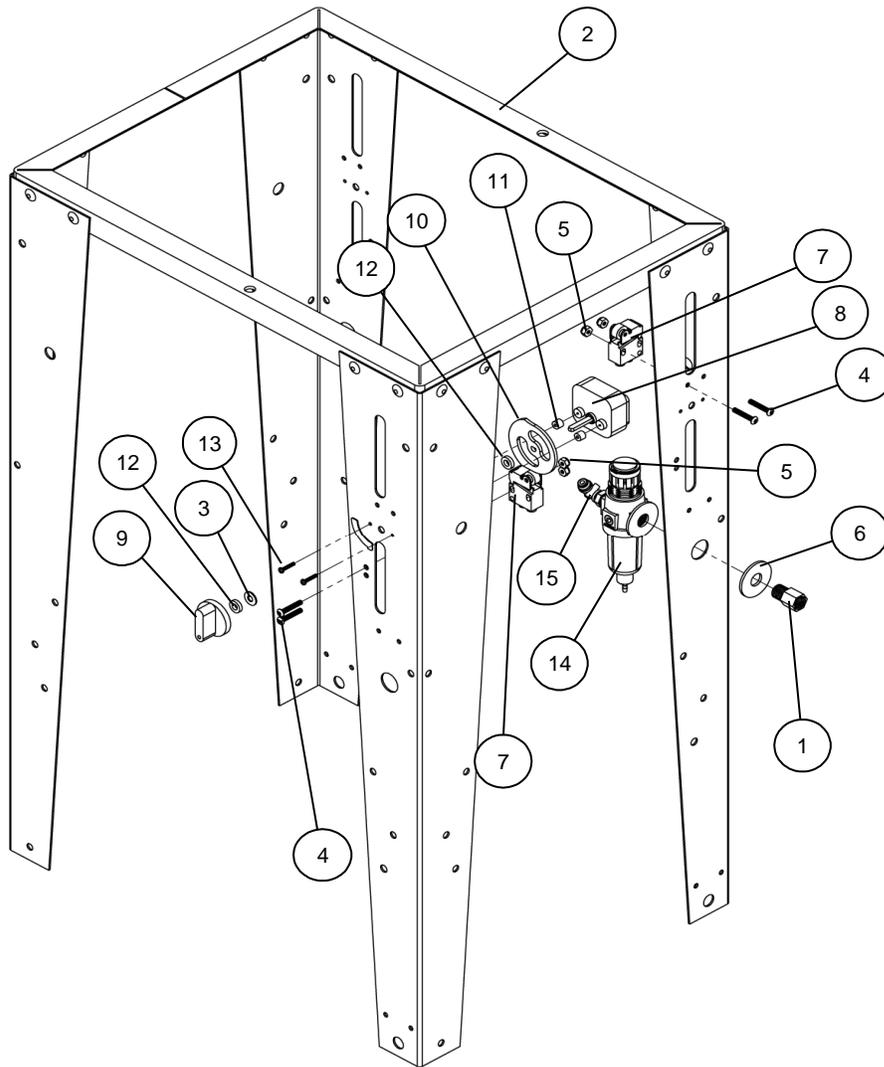
# G100 Manifold Layout



Part #	Description	Quantity
1	002-121A-6 Manifold Ground Wire	1 ea.
2	002-192 Ground Wire Rivet	1 ea.
3	005-107A Elbow 45° 1/8 NPT - Brass	2 ea.
4	1002422 Cup Holder	1 ea.
5	1002529 Manifold - Stainless	1 ea.
6	1002651 E-ring - Stainless	1 ea.
7	12509 Air Cap Assembly w/ SS Clip	1 ea.
8	22BA Trigger Lock Assembly	1 ea.
9	53A Stem Support Male	1 ea.
10	53B Stem Support Female	1 ea.
11	54P1 Full jet Nozzle - White	5 ea.
12	54 Full jet Nozzle - Brass	1 ea.
13	C9A Nipple 4-1/2" - Brass	2 ea.
14	M27 Hose Barb - Brass	1 ea.

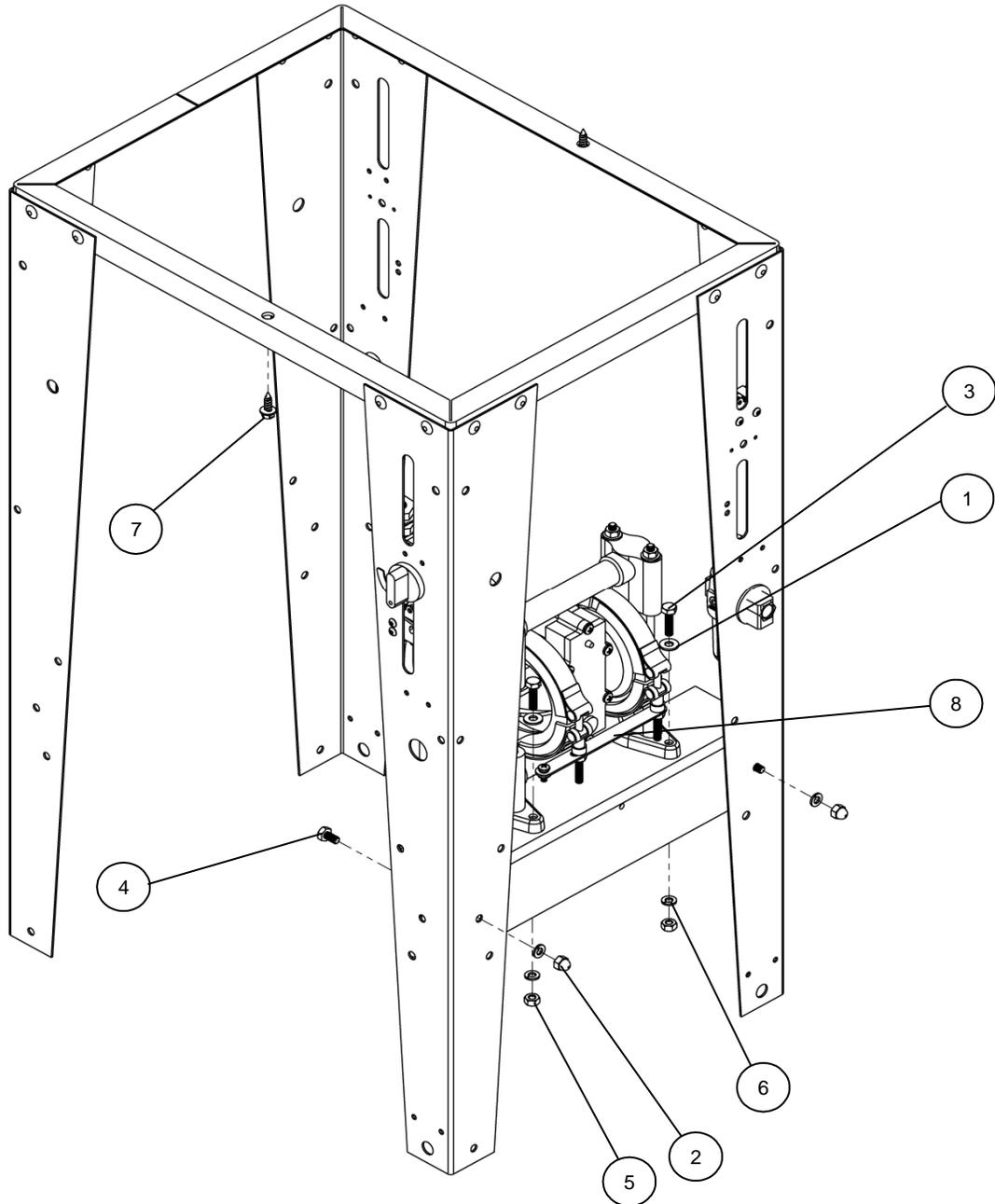
**Note:** Parts are shown for reference purposes only and are not necessarily part of a Herkules assembly.

# G100 Legs Layout



Part #	Description	Quantity
1	67 Adaptor 1/4 NPT - Brass	1 EA.
2	13981 Stand Assembly G100	1 EA.
3	002-161 Washer Flat #10 USS - Zinc	1 EA.
4	002-171 Screw 8-32 x 1 - Black	4 EA.
5	002-172 Nut Nylock 8-32 - Zinc	4 EA.
6	85I Washer Flat 1/2 USS Z	2 EA.
7	M1C Limit Valve	2 EA.
8	1007592 Timer	1 EA.
9	M230-002 Knob for Timer	1 EA.
10	M230-003 Cam For Timer	1 EA.
11	M230-004 Spacer 1/4" Thick	2 EA.
12	M230-005 Spacer 1/8" Thick	2 EA.
13	M230-006 Timer Screw #4 x 5/8	2 EA.
14	T17M Filter / Regulator	1 EA.
15	T25 Washer Lock Int Tooth #10 Z	1 EA.

# G100 Hardware Layout

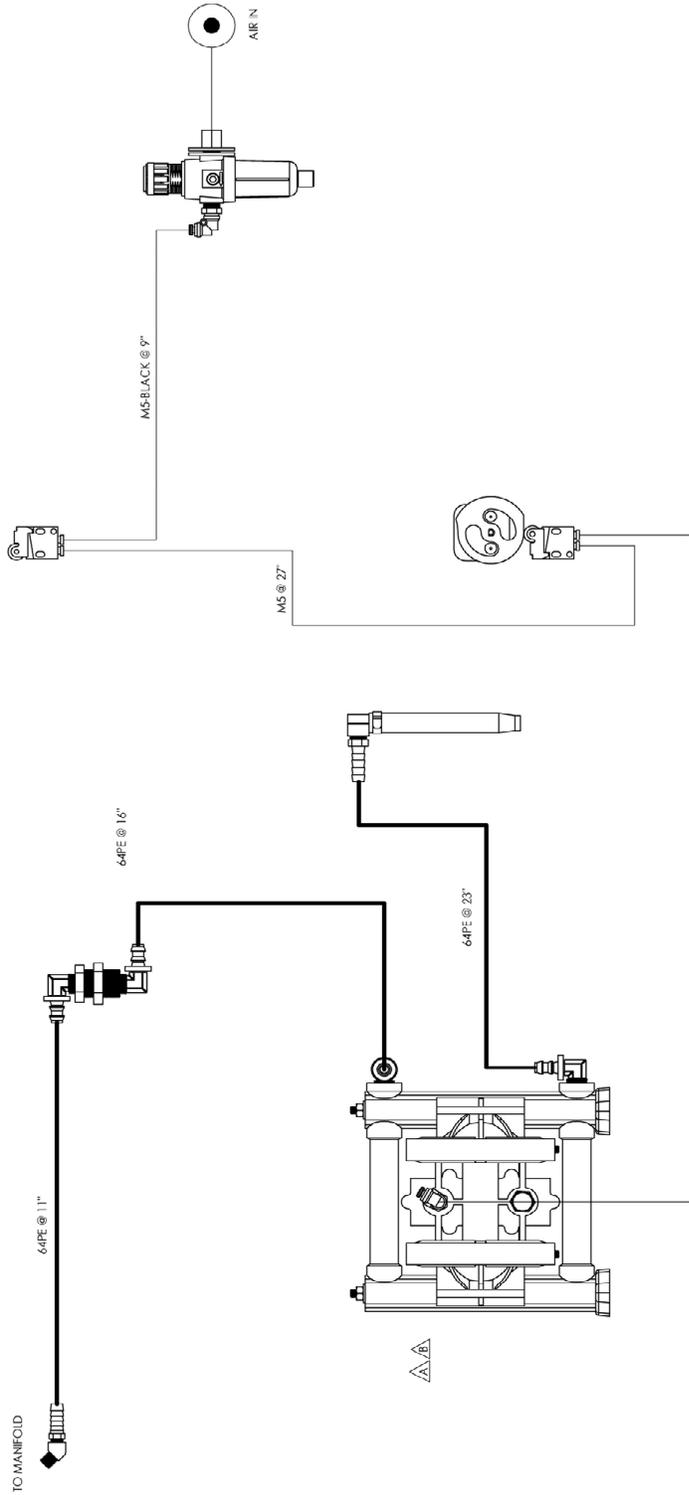


Part #	Description	Quantity
1	001-705 Washer Flat 1/4 USS - Zinc	2 ea.
2	008-244 Acorn Nut 1/4-20 - Nickel	2 ea.
3	001-702 Bolt Hex 1/4-20 x 1/2 - Zinc	2 ea.
4	83 Bolt Hex 1/4-20 x 1 - Zinc	2 ea.
5	84 Nut Hex 1/4-20 - Zinc	2 ea.
6	85 Washer Lock 1/4 - Zinc	4 ea.
7	002-158 Screw #14 x 3/4 - Zinc	2 ea.
8	12018 Pump Assembly For G100	1 ea.

DATE

REV. #

REV.	DESCRIPTION	DATE	APPROVED
A	MODIFIED PER ECO187	1/4/2016	SW
B	ECO# G100-01 ITEM #22	7/1/2020	DM



**hercules™**  
 7860 DEERWAY COULE • WAUWATIGA, WI 53096-1502  
 FILE: G100 SCHEMATIC

TOLERANCES UNLESS OTHERWISE NOTED  
 XX ± .005  
 XX ± .010  
 XX ± .020  
 XX ± .030  
 XX ± .050  
 XX ± .075  
 XX ± .100  
 XX ± .150  
 XX ± .200  
 XX ± .250  
 XX ± .300  
 XX ± .375  
 XX ± .500  
 XX ± .625  
 XX ± .750  
 XX ± 1.000  
 XX ± 1.250  
 XX ± 1.500  
 XX ± 2.000  
 XX ± 2.500  
 XX ± 3.000  
 XX ± 3.750  
 XX ± 4.500  
 XX ± 5.000  
 XX ± 6.000  
 XX ± 7.500  
 XX ± 9.000  
 XX ± 10.000  
 XX ± 12.500  
 XX ± 15.000  
 XX ± 18.000  
 XX ± 20.000  
 XX ± 25.000  
 XX ± 30.000  
 XX ± 37.500  
 XX ± 45.000  
 XX ± 50.000  
 XX ± 60.000  
 XX ± 75.000  
 XX ± 90.000  
 XX ± 100.000  
 XX ± 125.000  
 XX ± 150.000  
 XX ± 175.000  
 XX ± 200.000  
 XX ± 250.000  
 XX ± 300.000  
 XX ± 375.000  
 XX ± 450.000  
 XX ± 500.000  
 XX ± 600.000  
 XX ± 750.000  
 XX ± 900.000  
 XX ± 1000.000

DATE: 11/16/2012  
 DRAWN BY: SW  
 CHECKED BY: B  
 SHEET: 1 OF 1

**CONFIDENTIAL**  
 THE INFORMATION CONTAINED ON THIS DRAWING IS THE SOLE PROPERTY OF HERCULES EQUIPMENT CORPORATION. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF HERCULES EQUIPMENT CORPORATION IS PROHIBITED AND MAY BE UNLAWFUL.

— AIR LINE  
 — FLUID LINE