

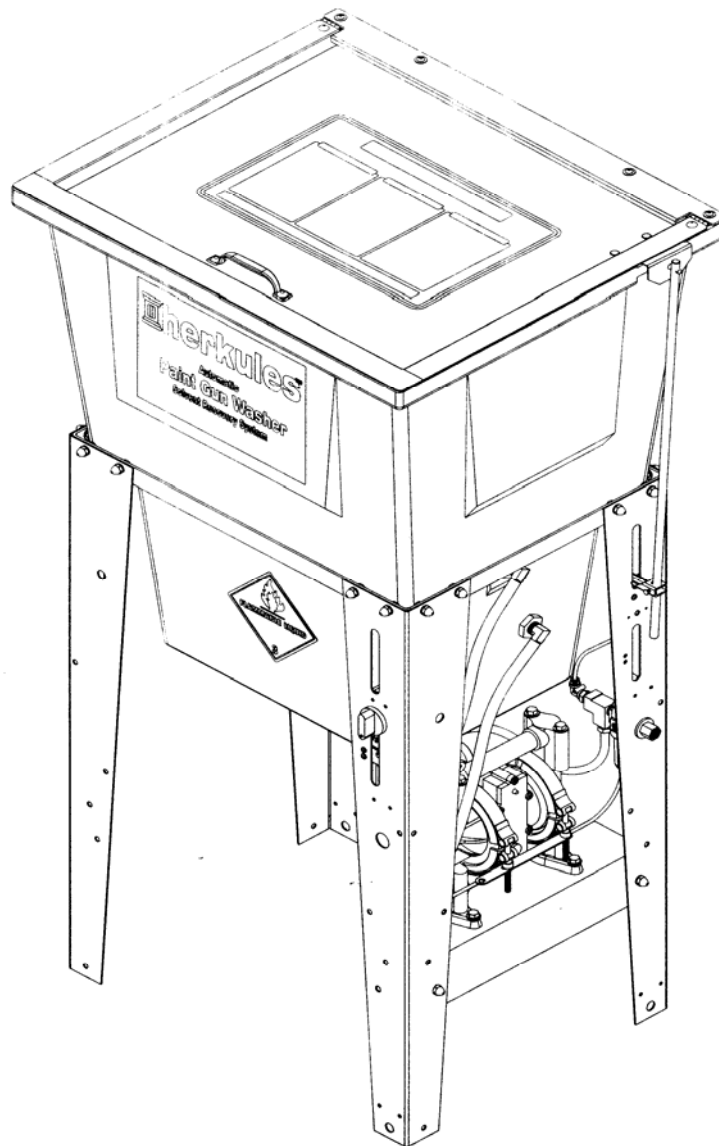
## C400

### OWNER'S MANUAL



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

#### INSTRUCTIONS



Herkules Equipment Corporation  
248-960-7100

2760 Ridgeway Court  
800-444-4351

Walled Lake, MI 48390-1662 USA  
Fax 248 960-7109

Patents USA 7070167 4793369, 4960142, 5174317, 5193561, 5485860 Canada 1299468 & Patents Pending  
website: [www.herkules.us](http://www.herkules.us) Made in the USA e-mail: [info@herkules.us](mailto:info@herkules.us)

# Table of Contents

Warnings	3-4
Model Information	5
Installation	5
Operation	6-7
Preventive Maintenance	7
Troubleshooting	8
Drawings with part lists:	9-16

## 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.

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

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

Purchase Date \_\_\_\_\_

Distributor \_\_\_\_\_

 **herkules™ PATENT NUMBERS**

This product has patent protection under one or more of the following patent numbers:

7070167, 5485860, 5193561, 5174317  
4960142, 4793369, 1299468  
and Patents Pending

website: [www.herkules.us](http://www.herkules.us) 1002742



# 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.
- 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 wetted 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 can 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 can washer lid is opened. Do not tamper with or alter this device.
- Open the can washer lid slowly.
- Do not prop the can 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 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 can washer area.
- Disconnect all electrical equipment in the can washer area.
- Keep the can washer area free of debris, including cleaning solutions, rags, and gasoline.
- Do not turn on any light switch in the can washer area while operating or if fumes are present.
- Do not smoke in the can washer area.
- Do not operate a gasoline engine in the can washer area.
- 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 can washer(s) is not in use.

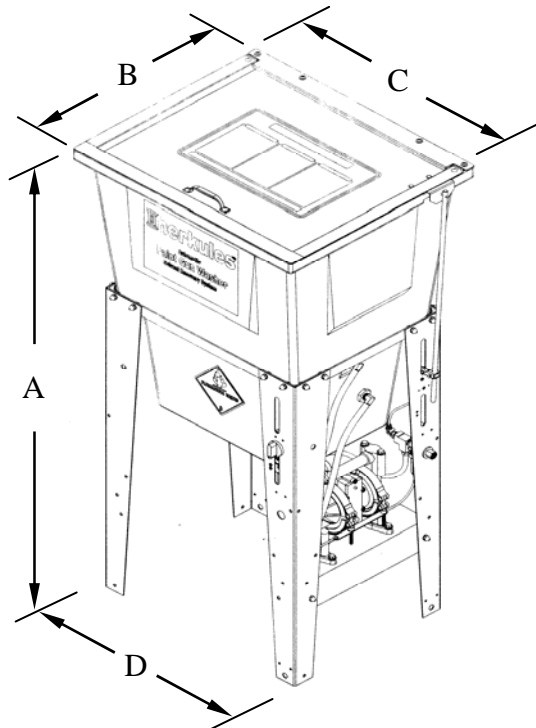


## TOXIC FLUID HAZARD

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.

# Model Information



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

Model	Description	Weight lbs/(kg)	Dimensions in./(mm)			
			A	B	C	D
C400	Paint can washer with high volume industrial diaphragm pump and timer for cleaning gallon and quart cans/lids and 5 gallon cans. Cleans 3 cans and one lid or 4 cans with adapter.	68 (31)	46.25 (1175)	20.50 (521)	25.25 (641)	21.00 (533)

## Installation

### Installing the Can Washer

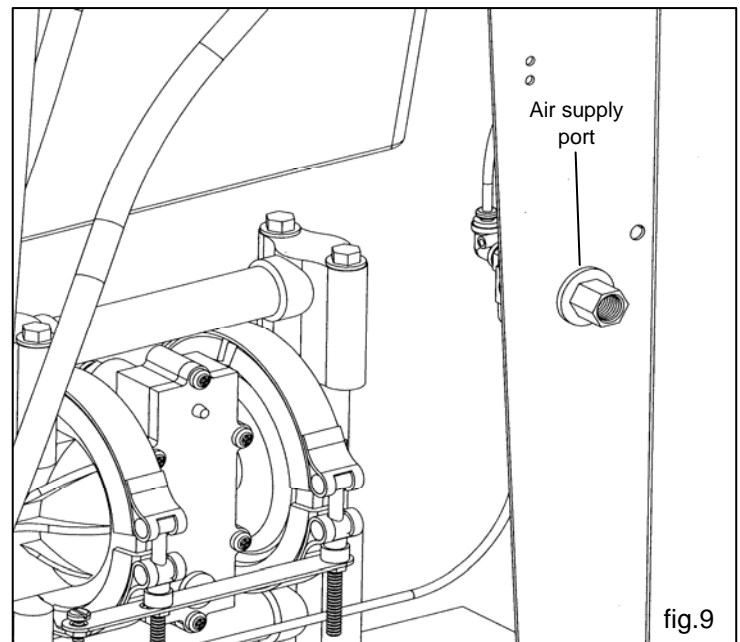
- 1) Place can washer on a level surface in a properly ventilated paint mixing room or paint booth.

### Grounding the Can Washer

- 1) Connect the ground wire on the can washer's pump to a true earth ground.
- 2) Ground all equipment used or located in the can 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 supply port of the filter/regulator located on the right rear leg (see fig.9).
- 2) Connect air line with at least 75 psi to the coupler. Filter/regulator is preset. Do not adjust.



# Operation

## Filling the Can Washer with Fluid

- 1) Close ball valve located on the bottom of the tank.
- 2) Pour five gallons (18.9 liters) of high quality slow evaporating solvent into the tank. DuPont 3661S or equivalent is recommended.

## Preparing the Equipment to be washed

- 1) Drain excess paint from cans and lids.

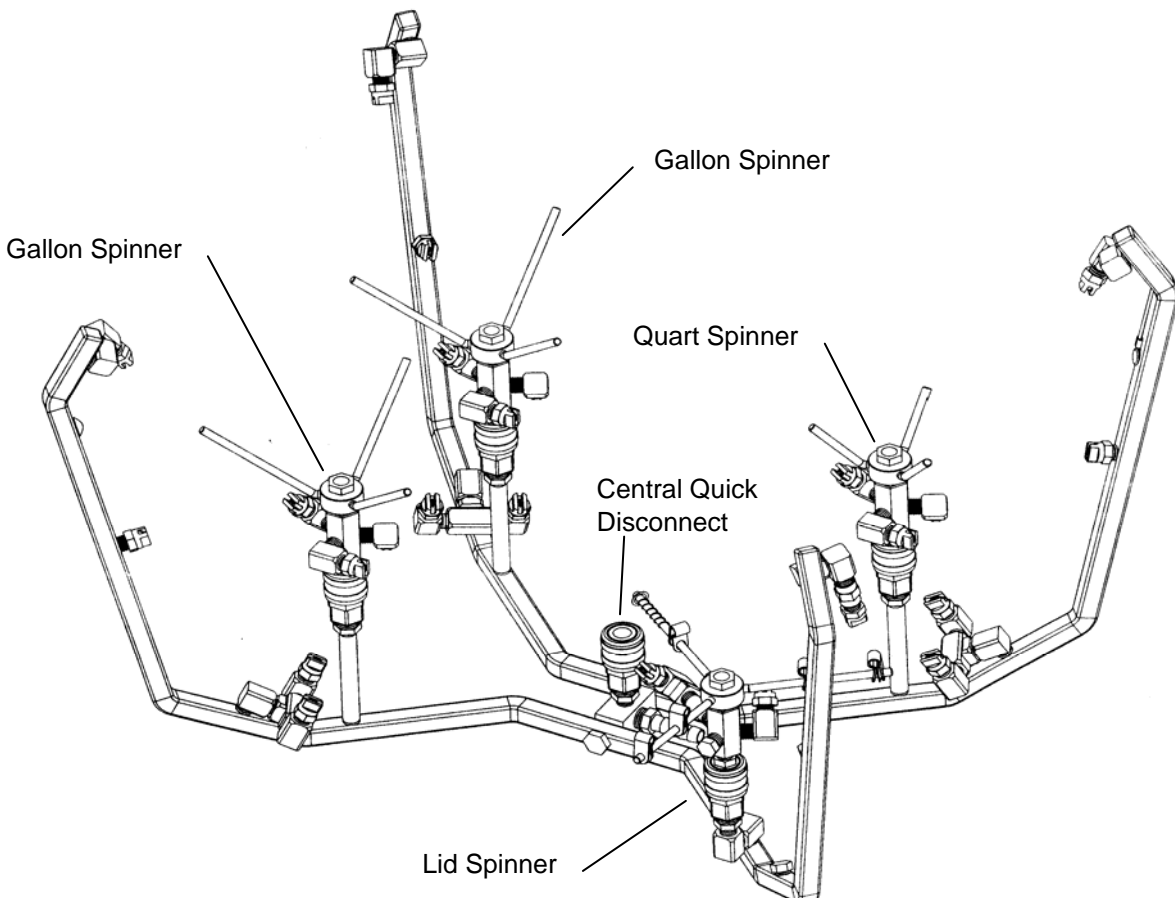
## Placing Equipment in the Can Washer

- 1) The C400 manifold is set up to clean one quart can, two gallon cans, and one lid (gallon or quart) simultaneously: or a 5-gallon can individually.
- 2) Three can supports are supplied in the can washer. The larger supports, located on the left side of the manifold, are designed to clean gallon cans: the smaller support is designed to clean a quart can.
- 3) The lid support accommodates both gallon and quart lids. The inner tabs on the lid support support the quart lid while the outer tabs support the gallon lids.
- 4) For cleaning 5-gallon cans, insert the rotating nozzle hanging at the back of the manifold into the quick disconnect at the center of the manifold after removing the plug assembly. Remove all other spinner assemblies and lid support. Place the 5-gallon can over the rotating nozzle now at the center of the manifold.

### **CAUTION**

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

**Note:** Remove the rotating nozzle when cleaning gallon and quart cans and lids.



# Operation

## Operating the Can Washer

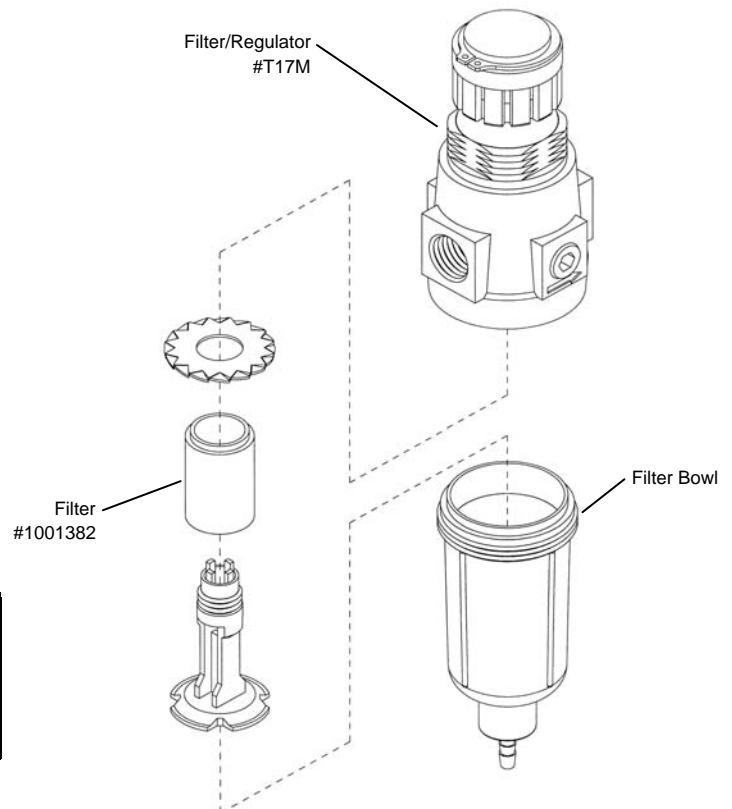
- 1) Make sure all accessories are inside the can washer tank.
- 2) If washing only one set of equipment, place empty cans over the unused nozzles to prevent solvent spray from hitting the underside of the can washer lid.
- 3) Close the can washer lid.
- 4) Turn the timer knob clockwise 90 degrees to start the can washer. The can washer will run for approximately 6 minutes. Turning the timer knob less than 90 degrees will reduce the timing cycle.
- 5) If the lid is opened prior to the end of the timing cycle, the safety air cutoff switch will stop the can washer. The can washer will start again when the lid is closed if time remains on the timer.

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

- 6) Remove the equipment from the can washer and wipe off any remaining solvent.

## Preventive Maintenance

- 1) Drain excess paint from cup or pot before placing in can washer.
- 2) Drain paint sludge from can 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) Remove the filter bowl and check the filter inside the regulator for excess buildup approx. every 6 months.
- 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.



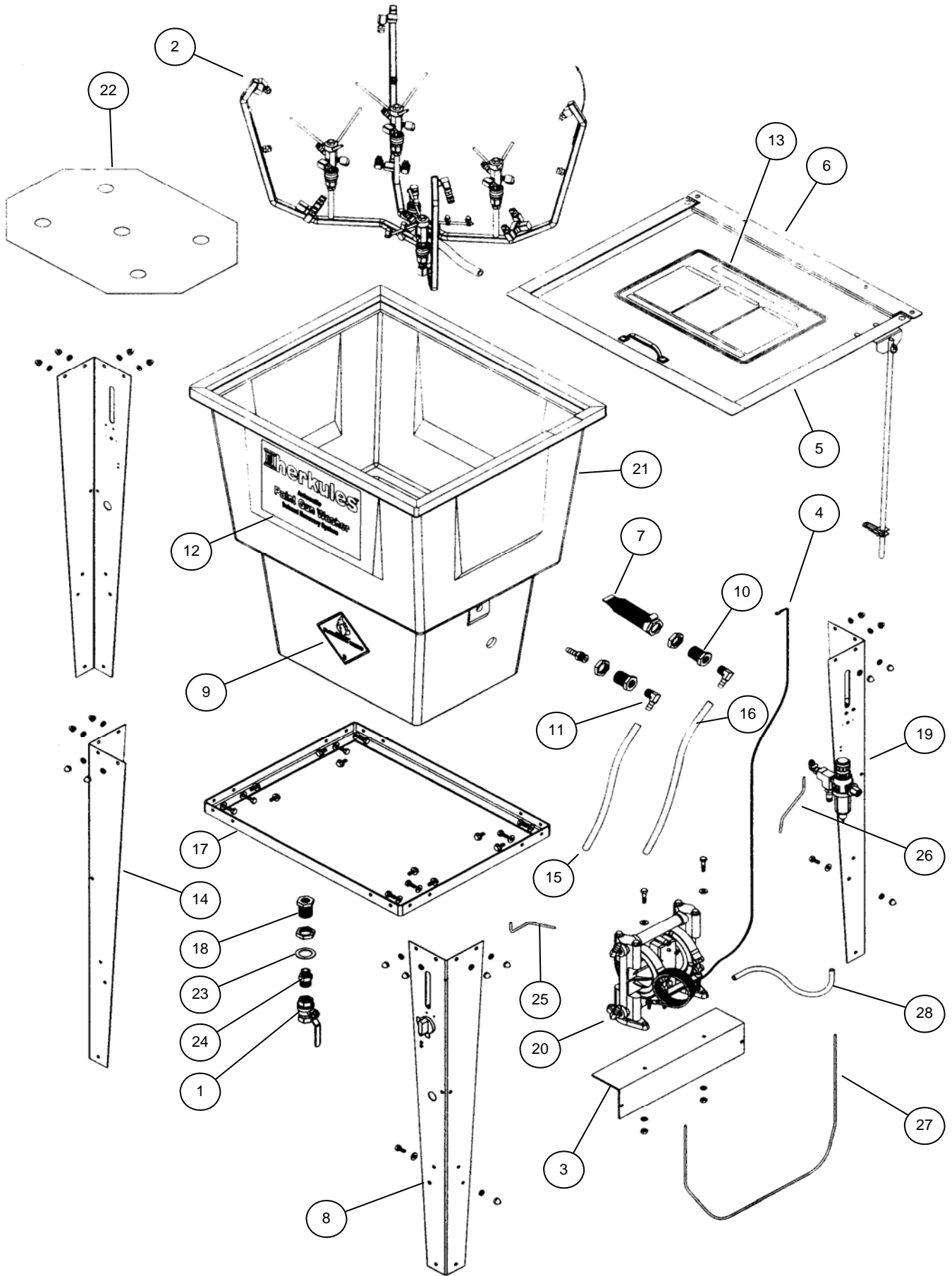
### CAUTION

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

# Troubleshooting

Problem	Possible Solution
Can 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 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>
Can 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 (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 are 5 gallons of clean solution in the can washer. The cleaning solution should be an inch above the intake filter.</li> <li>5 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>6 Make sure manifold nozzles and stem supports are not clogged.</li> </ol>
Can washer will not shut off	<ol style="list-style-type: none"> <li>1 Make sure timer cam is moving. If its 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>

# C400 Parts Layout

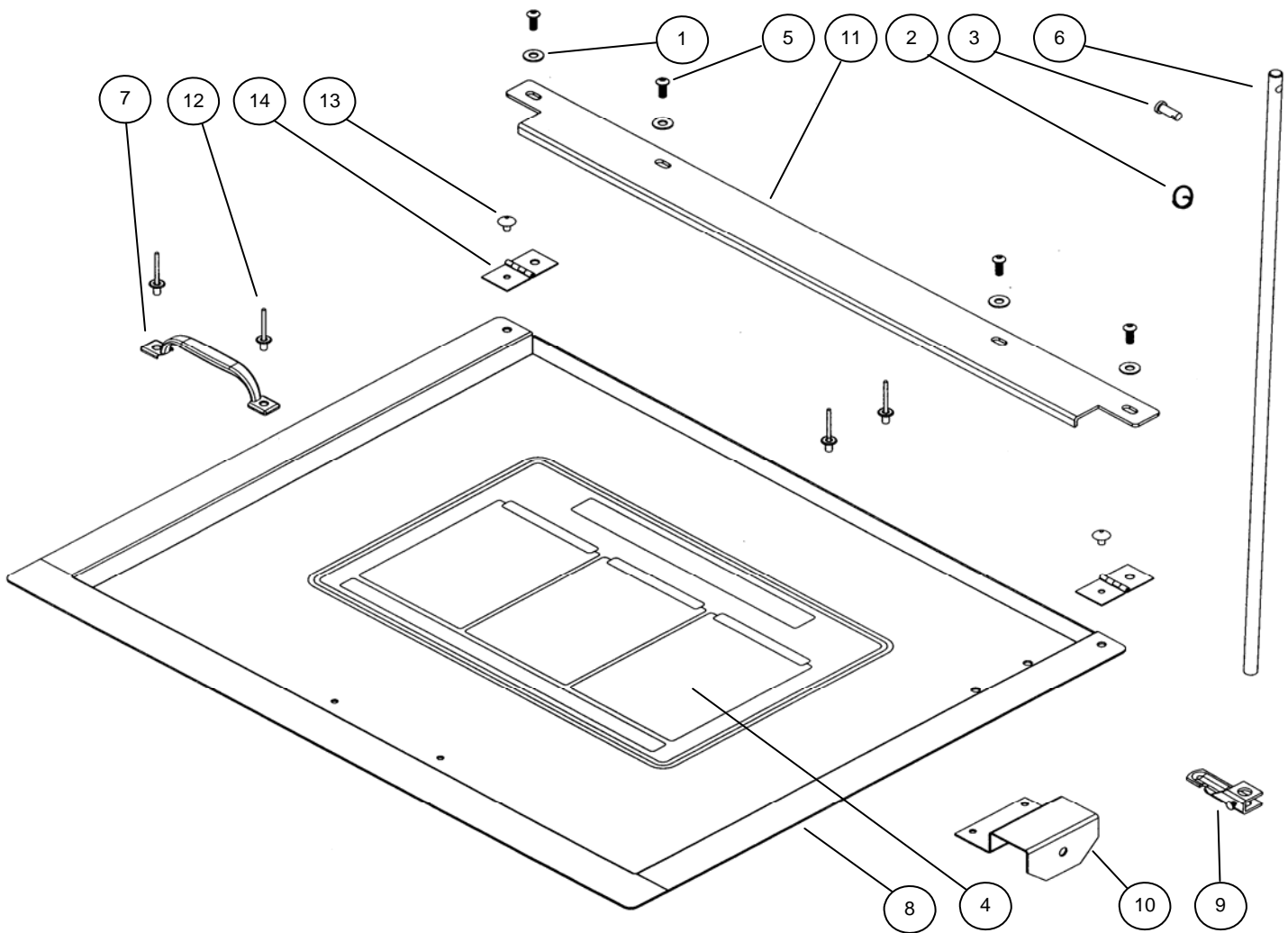


# C400 Parts Layout

	<b>Part #</b>	<b>Description</b>	<b>Quantity</b>	
<b>1</b>	6	Ball Valve	1 EA.	
<b>2</b>	10227	Manifold Assembly	1 EA.	See pg. 12
<b>3</b>	11958	Pump Bracket	1 EA.	
<b>4</b>	11978	Ground Wire	1 EA.	
<b>5</b>	12025	Lid Assembly	1 EA.	See pg. 11
<b>6</b>	12321	Lid Stop	1 EA.	
<b>7</b>	12491	Filter Assembly	1 EA.	
<b>8</b>	13064	Timer Leg	1 EA.	See pg. 14
<b>9</b>	1000651	Flammable Label	1 EA.	
<b>10</b>	1002644	Bulkhead	2 EA.	
<b>11</b>	1002650	Hose Barb Elbow	2 EA.	
<b>12</b>	1001706	Tub Decal	1 EA.	
<b>13</b>	1001708	Lid Sticker	1 EA.	
<b>14</b>	1002378	Leg	2 EA.	
-	002-133SA	Center Spray Assembly	1 EA.	
<b>15</b>	64PE	3/8" Hose	14 IN.	
<b>16</b>	64PE	3/8" Hose	16 IN.	
<b>17</b>	1002428	Stand Frame	1 EA.	
<b>18</b>	1002644	Bulkhead	1 EA.	
<b>19</b>	13065	Filter Leg Assembly	1 EA.	See pg. 14
<b>20</b>	13066	Pump Assembly	1 EA.	See pg. 14
<b>21</b>	1-BLUE	Reservoir Tank	1 EA.	
<b>22</b>	25D	Divider	1 EA.	
<b>23</b>	85B	Nylon Washer	1 EA.	
<b>24</b>	62	Reducing Nipple	1 EA.	
<b>25</b>	M5	Tube 5/32 - Blue	16 IN.	
<b>26</b>	M5-BLACK	Tube 5/32 - Black	9 IN.	
<b>27</b>	M5-NEUTRAL	Tube 5/32 - Neutral	39 IN.	
<b>28</b>	M7	Tube 1/4 - Black	13 IN.	

**Note:** For parts shown but not identified refer to assembly layouts on pages 11-16

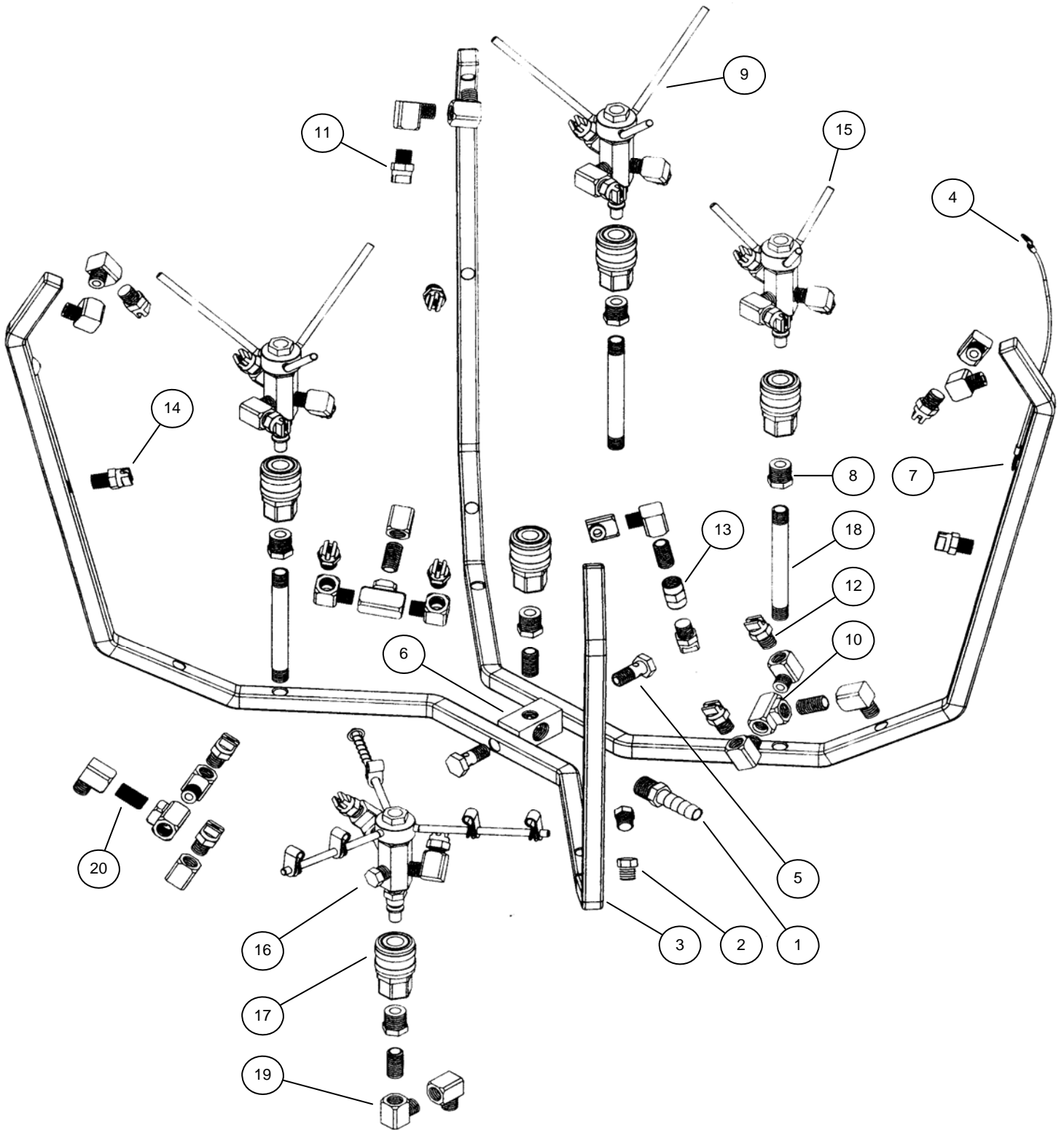
# C400 Lid Layout



Part #	Description	Quantity
1	002-161 Washer Flat #10 USS - Zinc	4 EA.
2	1000252 Actuator Clip Ring	1 EA.
3	1000652 Actuator Pin	1 EA.
4	1001708 Lid Sticker	1 EA.
5	1002546 Screw 10-24 x 1/2	4 EA.
6	1002572 Actuator Rod	1 EA.
7	10A Handle	1 EA.
8	11219 Lid	1 EA.
9	11957 Actuator Bracket Notched	1 EA.
10	12024 Actuator Lid Bracket	1 EA.
11	12321 Lid Stop	1 EA.
12	14C Rivet 3/16 x 1/2 - Aluminum	4 EA.
13	17 Rivet 3/16 x 1/4 - Stainless	2 EA.
14	39C Hinge	2 EA.

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

# C400 Manifold Layout

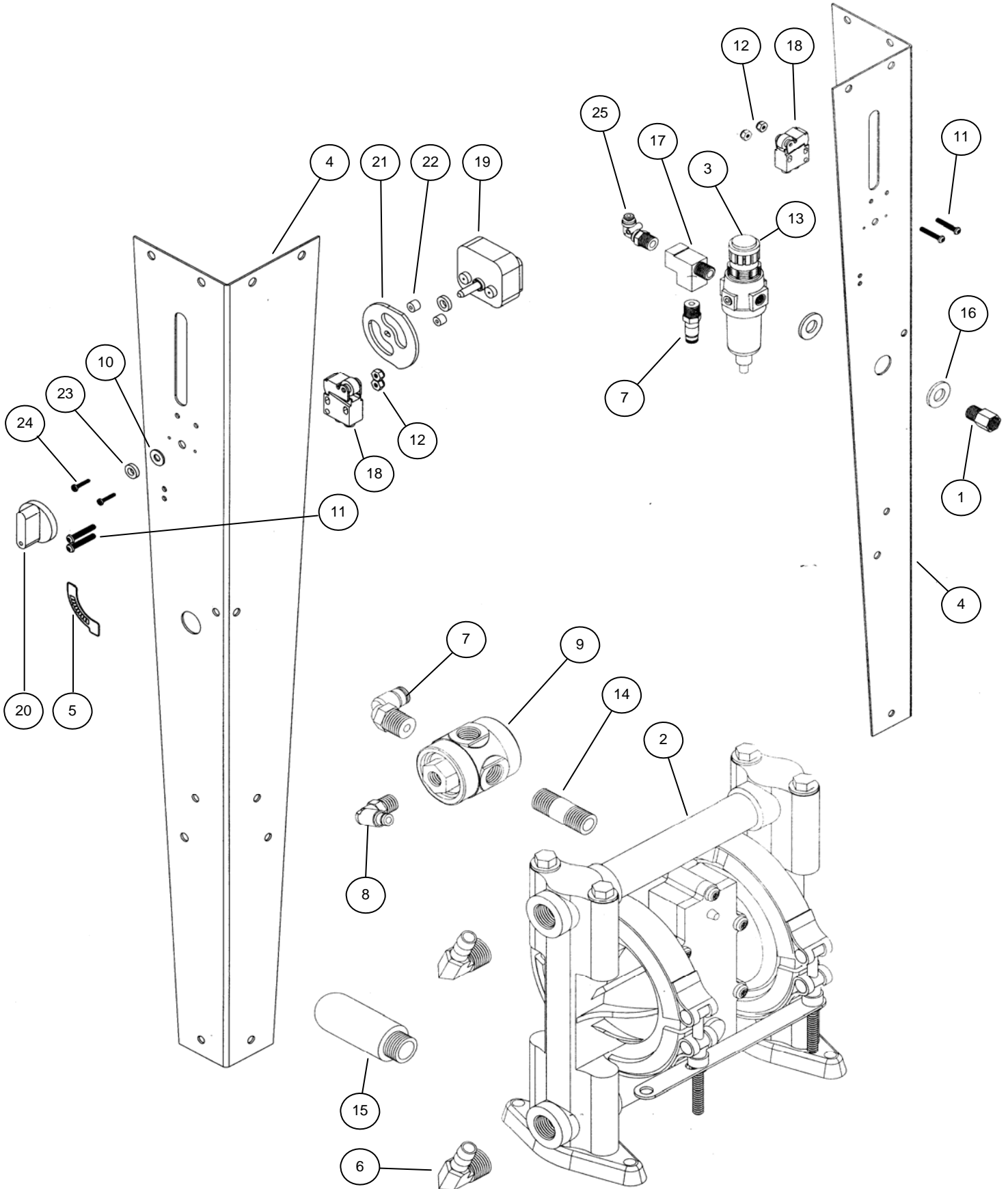


# C400 Manifold Layout

	Part #	Description	Quantity
1	57	Hose Barb 3/8 x 1/4 NPT - Brass	1 EA
2	59	Hex Plug 1/8 NPT - Brass	2 EA
3	1002321	Manifold Half - Stainless	2 EA
4	002-121A-6	Ground Wire	1 EA
5	002-136S	Manifold Bolt - Stainless	2 EA
6	002-137D	Manifold Block - Brass	1 EA
7	002-192	Ground Wire Rivet	2 EA
8	005-134	Reducing Bushing - Brass	5 EA
9	C1	Gallon Spinner Assembly	2 EA
10	C12	Tee 1/8 NPT - Brass	3 EA
11	C14	95 deg Nozzle - Brass	4 EA
12	C15	40 deg Nozzle - Brass	6 EA
13	C16	Couple - Brass	1 EA
14	C17	110 deg Nozzle - Brass	3 EA
15	C2	Quart Spinner Assembly	1 EA
16	C3	Lid Spinner Assembly	1 EA
17	C8A	Couple QD	5 EA
18	C9	Nipple 1/8 NPT x 3-1/2"	3 EA
19	M6	Elbow 1/8 NPT - Bras	19 EA
20	T21	Nipple 1/8 NPT - Brass	6 EA

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

# C400 Pump and Legs Layout

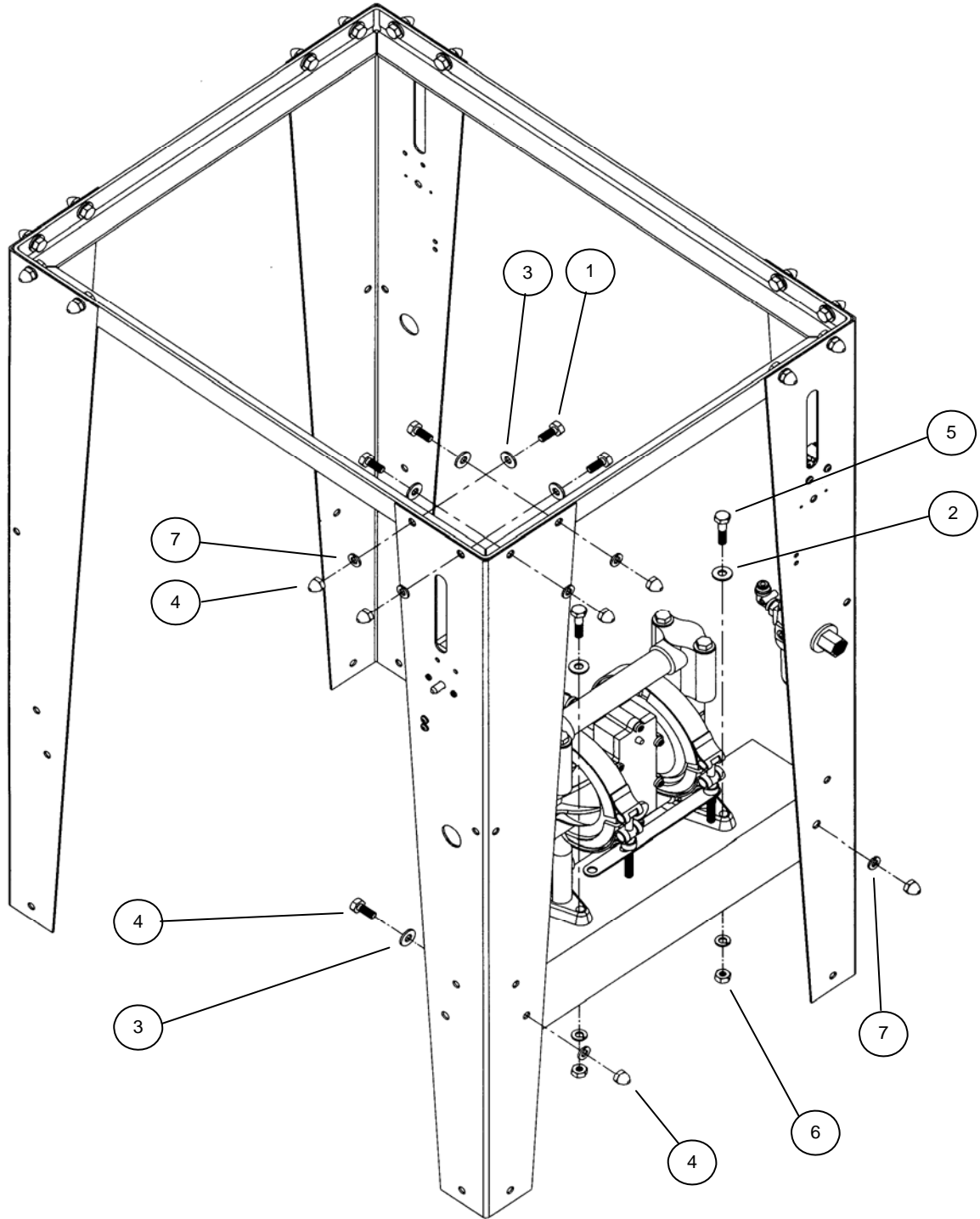


# C400 Pump and Legs Layout

	Part #	Description	Quantity
1	67	Adaptor 1/4 NPT - Brass	1 EA.
2	338	Pump 3/8 NPT Ports	1 EA.
3	1001380	Filter / Regulator	1 EA.
4	1002378	Leg	2 EA.
5	1002414	Sticker ON / OFF	1 EA.
6	1002650	Hose Barb Elbow 3/8 NPT - Brass	2 EA.
7	002-118	Fitting PTC 1/4 x 1/4 NPT	2 EA.
8	002-129	Fitting PTC 90 deg 5/32 x 1/8 NPT	1 EA.
9	002-159	Pilot Valve	1 EA.
10	002-161	Flat Washer # 10	1 EA.
11	002-171	Screw 8/32 x 1 - Black	4 EA.
12	002-172	Nylock Nut 8/32	4 EA.
13	002-179	Retaining Ring	1 EA.
14	M26A	Nipple 1/4 NPT - Brass	1 EA.
15	1000204	Plastic Muffler	1 EA.
16	85D	Flat Washer 1/2	2 EA.
17	C12BX	Tee 1/4 NPT - Brass	1 EA.
18	M1C	Limit Switch	2 EA.
19	M230-001B	Timer 30 min.	1 EA.
20	M230-002	Knob for Timer	1 EA.
21	M230-003	Cam for Timer	1 EA.
22	M230-004	Spacer 1/4 - Nylon	2 EA.
23	M230-005	Spacer 1/8 - Nylon	2 EA.
24	M230-006	Screw for Timer	2 EA.
25	T25	Fitting PTC 90 deg 5/32 x 1/4 NPT	1 EA.

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

# C400 Hardware Layout



	<b>Part #</b>	<b>Description</b>	<b>Quantity</b>
1	001-702	Bolt Hex 1/4-20 x 1/2 - Zinc	18 EA.
2	001-705	Washer Flat 1/4 USS - Zinc	2 EA.
3	002-161	Washer Flat #10 USS - Zinc	19 EA.
4	008-244	Acorn Nut 1/4-20 - Nickel	18 EA.
5	83	Bolt Hex 1/4-20 x 1 - Zinc	2 EA.
6	84	Nut Hex 1/4-20 - Zinc	2 EA.
7	85	Washer Lock 1/4 - Zinc	20 EA.