

DRAMM[®] FOAMER



Owners Manual

FM20 / FM50 Foamer

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— **DRAMM** — **FOAMER**

Model: FM20 FM50
Serial Number

Test Run & Final Inspection
_____ Date Passed Final Systems Test
By: _____
Shipped To:

Limited Warranty

Dramm Corporation warrants to the extent of the purchase price, that the Foamer will be free from defects in materials and workmanship to the original purchaser for a period of six months. Parts subject to wear are not covered under this limited warranty. Defects or damages due to the misuse, non-observance of safety standards, or non-observance of EPA chemical guidelines are not covered under this limited warranty. Please read and follow the instructions and heed warnings stated in the operating manual and on the Foamer.

Dramm Corporation makes no other further warranty, expressed or implied, and all other or further warranties, including any warranties of merchantability or fitness for a particular purpose are expressly excluded.

In no event shall Dramm Corporation be liable for loss of product, profit or any other special, incidental or consequential damages including, but not limited to, plant damage, property or persons.

This warranty begins on the date of original purchase. If warranty service is required, the equipment must be sent prepaid to:

Foamer Service
Dramm Corporation
2000 North 18th Street
Manitowoc, WI 54220

Dramm Corporation makes no warranty, expressed or implied, in regard to the efficacy of any pesticide or other chemical which may be applied using the Foamer.

SAFETY INSTRUCTIONS

1. Always wear safety goggles and protective gloves while operating foam unit.
2. Avoid contact of cleaning agents with skin and eyes. If contact occurs rinse affected area with water for 15 minutes and get medical attention if needed.
3. After use, relieve all remaining pressure in the system by unplugging the air line from the unit and opening the discharge ball valve.
4. Incoming air pressure cannot exceed 100 psi.
5. Never point the discharge ball valve at anyone.
6. Be sure to flush the unit with fresh water for 5 minutes when switching from an alkaline to an acid or an acid to an alkaline.

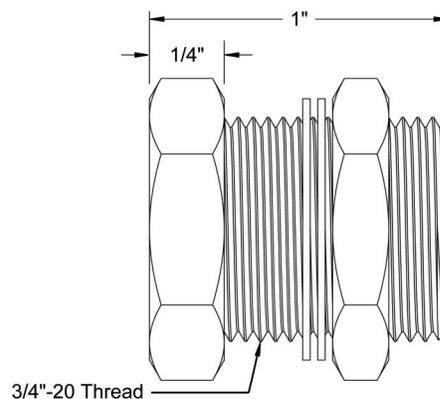
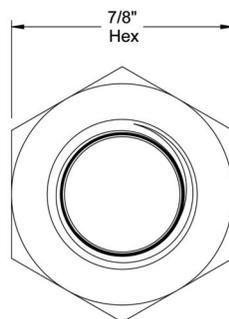
SET - UP INSTRUCTIONS

1. Remove all parts from shipping box.
2. Clip the cable tie holding the air fitting, cotter pins, and axle washers from the leg of the cart.
3. Place one of the washers on one of the axles, then slip a wheel on the axle followed by a second washer, then insert a cotter pin into the hole in the axle and bend the cotter pin to keep it from falling out. Repeat this for the other side.
4. Screw the air plug into the brass fitting on the side of the control box. Be sure to hold the brass fitting while turning the air plug. Do not over-tighten.

AIR FITTING

Because there are a number of different air fitting standards available, Dramm foamers do not come with a pre-installed air fitting. The air inlet offers both 1/4" female pipe thread and 3/4" male pipe thread as connection options for your fitting.

1. Choose an air fitting that matches those on your compressor outlet.
2. Apply teflon tape or pipe sealant to the thread and install.



OPERATION INSTRUCTIONS

Connect air line to foamer. Air required is a minimum of 5 CFM @ 60 psi. More air volume may be required with longer hose lengths.

1. Fill the tank with combination of water and foaming chemical, Follow all chemical manufacturer mixing instructions.
2. With ball valve in the closed position, plug an air line into the air fitting.
3. Slowly open the ball valve.
4. Adjust the **wet foam/dry foam** valve to desired wetness or dryness of foam following the steps below:
 - A. Close valve completely in clockwise direction
 - B. Open valve in counter-clockwise direction 3 complete turns
 - C. Continue to open valve in 1/4 turn increments allowing 30 seconds between adjustments until proper consistency of foam is achieved.
 - D. If the valve is open too far it can cause the pump to stall out. If this occurs begin again with step A.
5. After use flush the unit with fresh water for 5 minutes.
6. Disconnect air source from the air fitting.
7. Open ball valve on nozzle and relieve pressure from the system before storage.

USEABLE PRODUCTS

ACCEPTABLE PRODUCTS

- ALKALINE CLEANERS
- CAUSTIC CLEANERS
- SANITIZERS
- PHOSPHORIC ACIDS ONLY

UNACCEPTABLE PRODUCTS

- STRONG ACIDS
- ALL HYDROCARBONS
- D-LIMONENE

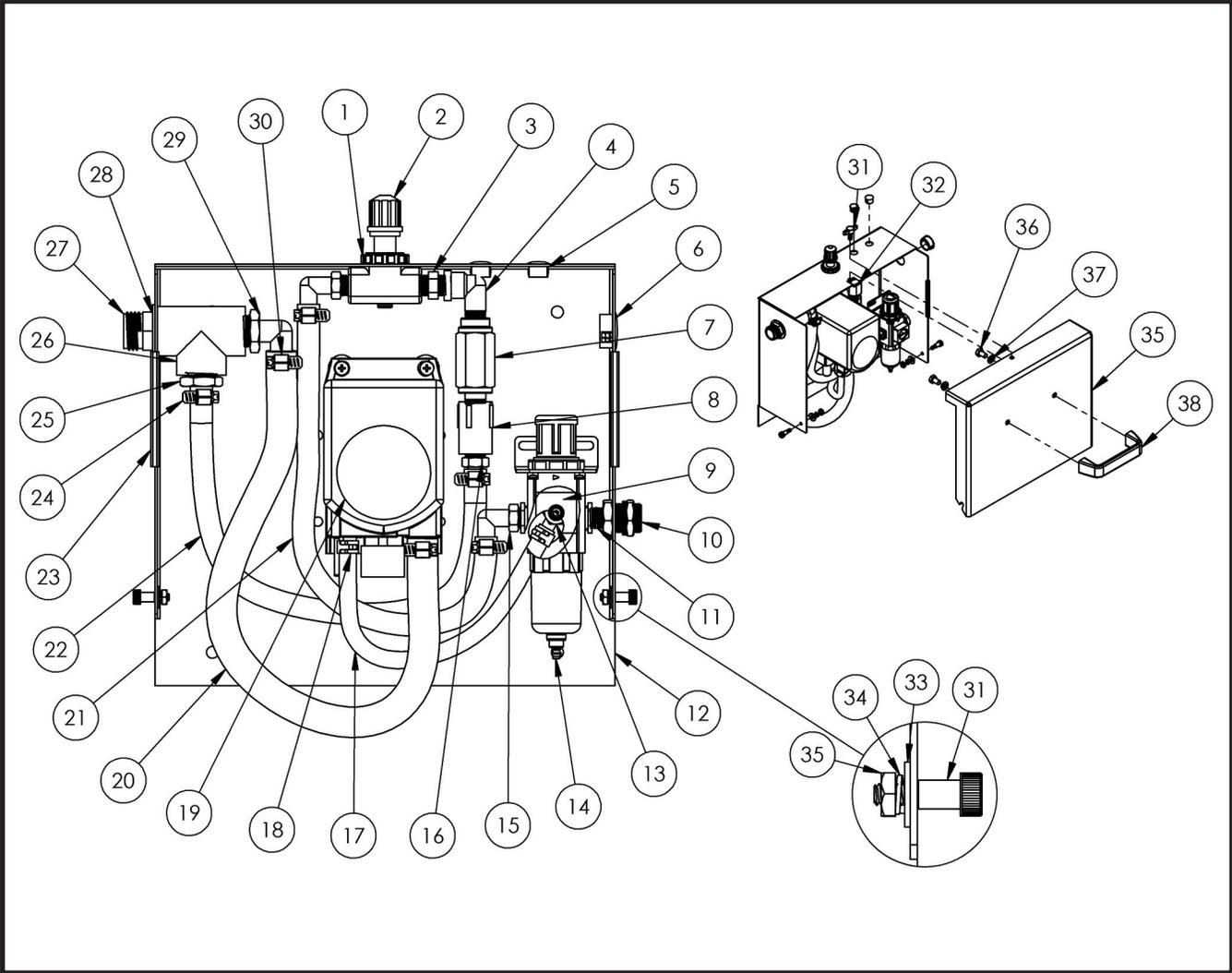
AFTER USE INSTRUCTIONS

1. It is recommended to run a gallon of fresh water through the unit after each use. With the discharge ball valve open run the unit until the gallon of water has gone through the unit and discharged out of the discharge hose.
2. Disconnect the air line from the air fitting and relieve any remaining pressure in the system by having the discharge ball valve in the open position.
3. Close the discharge ball valve when all the pressure is relieved from the system.

TROUBLESHOOTING

1. Check for proper air pressure (60psi or more into unit, 60 psi on AG100).
2. Check for proper air flow. Foamer needs 5 CFM **minimum** and more with longer hose lengths.
3. Check air inlet filter for debris such as water, oil, or rust particles. Clean by pressing up on the bottom of the filter.
4. Ensure that the discharge hose is not kinked in any way that would reduce or obstruct solution flow.
5. Check for plugged strainer. Replace strainer if necessary, **STRAINER MUST BE USED.**
6. If **wet foam/dry foam** valve is open too far the pump will not cycle properly due to lack of air pressure. If this occurs, reset valve as described in operation instruction #4.
7. Make sure proper foaming chemical and concentration is being use.
8. If air passes through the pump without cycling, replace pump.
9. If foam solution backs up into air filter the check valve needs to be replace.
10. If foam comes out wet no matter where the **wet foam/dry foam** valve is positioned the check valve may need to be replaced.
11. If unit foams at a reduced pressure:
 - A. Check the air supply into the unit. If it is low, turn the foam unit off until the compressor can catch up.
 - B. If the air supply is 60psi or above, check the internal air gauge which should read near 60psi. If the gauge is more or less than 60psi, adjust the pressure by turning the knob on the top of the regulator.

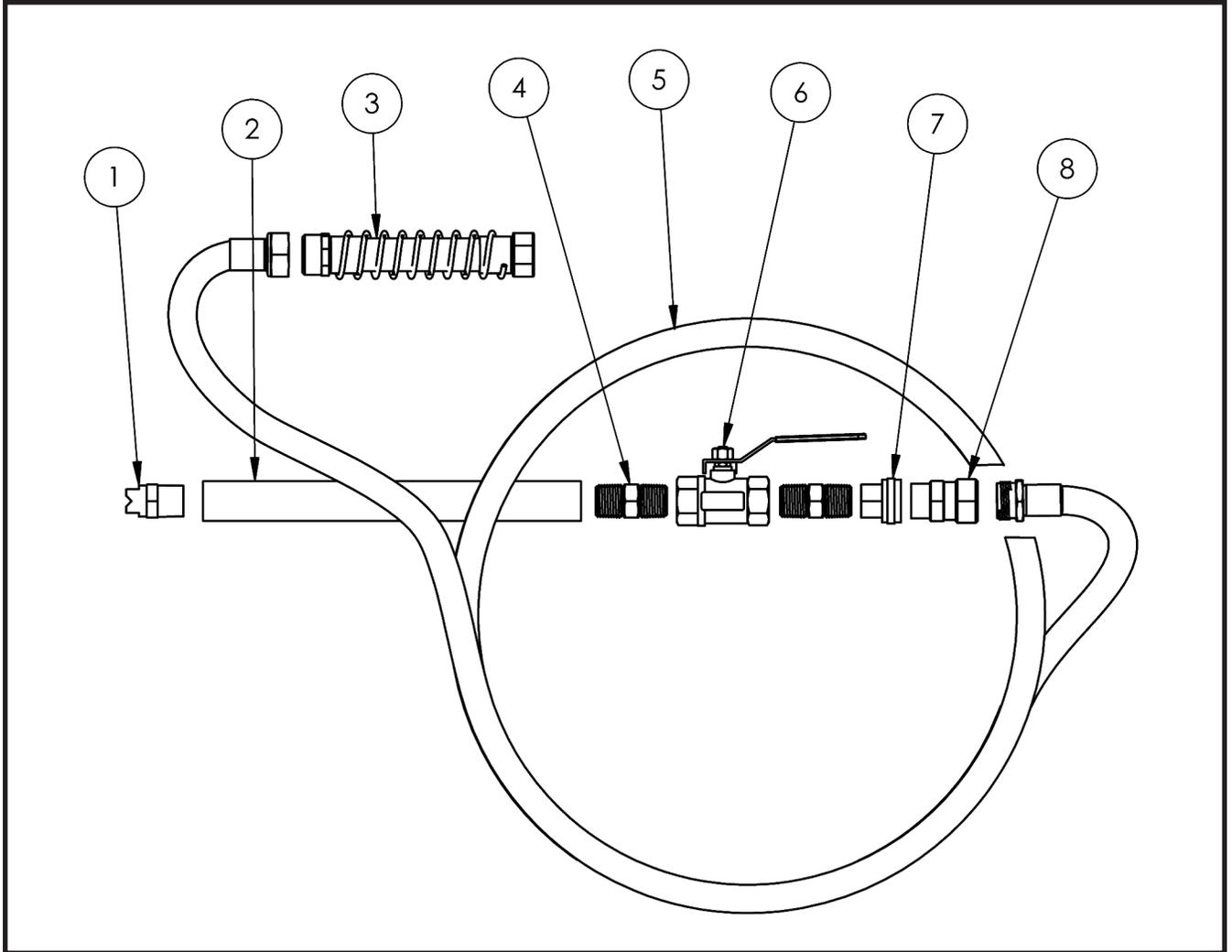
FM BOX ASSEMBLY DIAGRAM



BOX PARTS LIST

ITEM #	DRAMM#	DESCRIPTION	QTY.
1	230501	PANEL NUT NEEDLE VALVE	1
2	230500	NEEDLE VALVE W/NUT 1/4PTF POLY	1
3	220023	NIPPLE HEX 1/4 NPT NY	1
4	220124	ELBOW ST 1/4 NPT NY	1
5	300845	PLUG PANEL 1/2 BLACK NY	2
6	300852	PLUG PANEL 7/8 BLACK	1
7	230241	VALVE CHECK 1/4 F NPT X 1/4 M NPT PVC	1
8	220086	COUPLING 1/4 FPT SCH80	1
9	AGP-21	GAUGE PORT PNEUMATIC	1
10	220502	FITTING BLKHD 1/4FPT BR	1
11	220046	NIPPLE CLOSE 1/4NPT BR	1
12	D12051B P	BOX FM20 STL PAINTED	1
13	220235	BARB ELL 1/4 X 1/8 NPT NY	1
14	AFR-2233	REGULATOR AIR 20-130 PSI	1
15	220230	BARB ELL 3/8 X 1/4 MPT NY	2
16	220229	BARB 3/8 X 1/4 MPT NY	1
17	250061	1/4" HOSE	12"
18	220410	1/2" O.D. SPRING CLAMP	2
19	200031	PUMP AIR DRIVEN 5.0 GPM VITON	1
20	250040	1/2" HOSE	18"
21	250062	3/8" HOSE	14"
22	250062	3/8" HOSE	14"
23	100100	EDGING 3" LG	2
24	220400	1/2" HOSE CLAMP	4
25	220228	1/2NPT X 3/8 BARB FITTING	1
26	220609	TEE THREADED 1/2 FPT SCH80	1
27	220018	ADAPTER 1/2 MPT X 3/4 GH BR	1
28	116200	SHIM 7/8 X 1 3/8 X .062	1
29	220234	BARB ELL 1/2 X 1/2 NPT MALE NY	1
30	220403	3/4" HOSE CLAMP	2
31	110403	BOLT SHOULDER 1/4 X 3/8 X 10-24	2
32	111641	PPH MS 10-24 X 1 SSTL	4
33	111730	WASHER FLAT #10 SSTL	6
34	111731	WASHER LOCK #10 SSTL	6
35	111820	NUT HEX #10-24 SSTL	6
36	114053	THUMB SCREW 1/4-20 X 5/8	1
37	114103	NUT-J 1/4-20	1
38	D11908	WC COVER	1
39	110020	5/16-18 X 1/2" LG HHCS GR.5	2
40	110321	5/16" LOCK WASHER	2
41	8300875	HANDLE	1

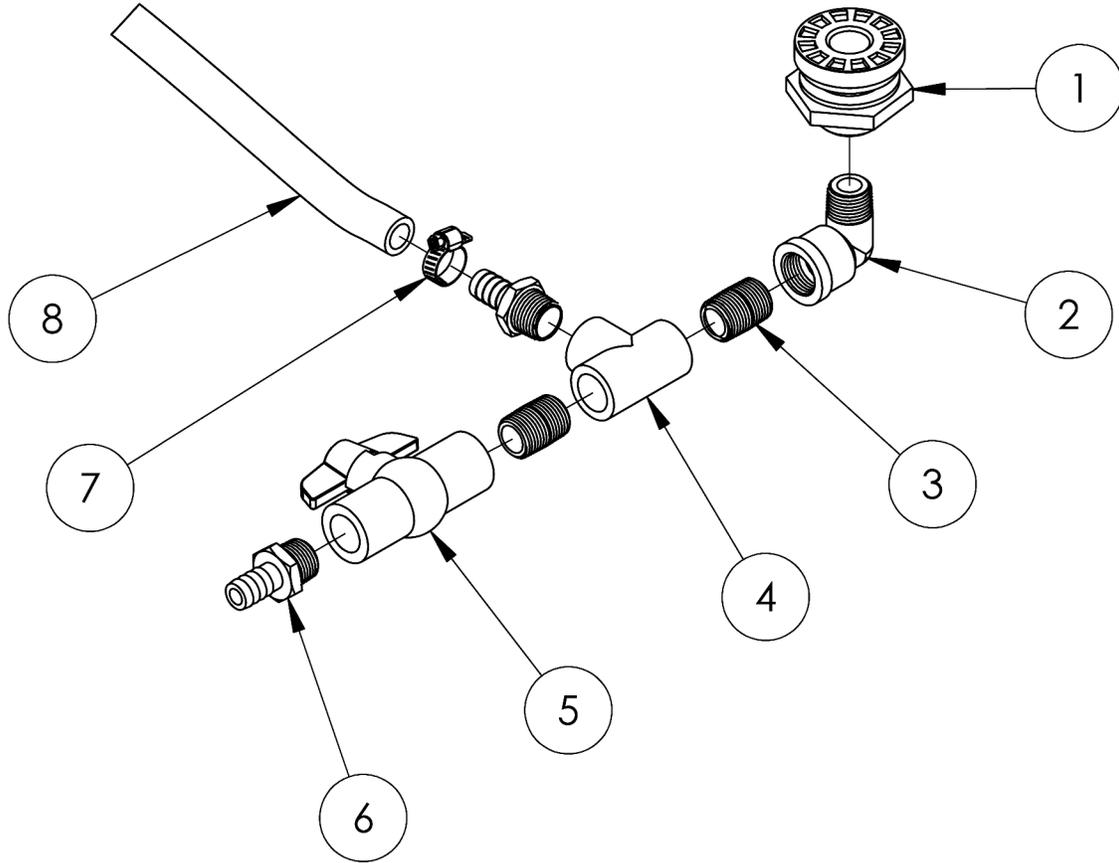
FM HOSE ASSEMBLY DIAGRAM & PARTS LIST



ITEM #	DRAMM#	DESCRIPTION	QTY.
1	280009	SPRAY TIP	1
2	D11564	WAND PIPE PVC	1
3	73625	DRAMM HOSE PROTECTOR	1
4	220051	NIPPLE HEX 1/2 NPT STL	2
5	17033-25F	DRAMM HOSE 1/2 X 25FT 1PC YL W/F	1
5	17033-50F	DRAMM HOSE 1/2 X 50FT 1PC YL W/F	1
5	17033-75F	DRAMM HOSE 1/2 X 75FT 1PC YL W/F	1
6	230040	BALL VALVE 1/2 BRASS	1
7	220041	ADAPTER 3/4FHT X 1/2FPT BR	1
8	72700	BRASS SWIVEL 3/4 GHT BR	1
	FW	WAND COMPLETE Item#'s: 1, 2, 4, 6, 7, & 8	

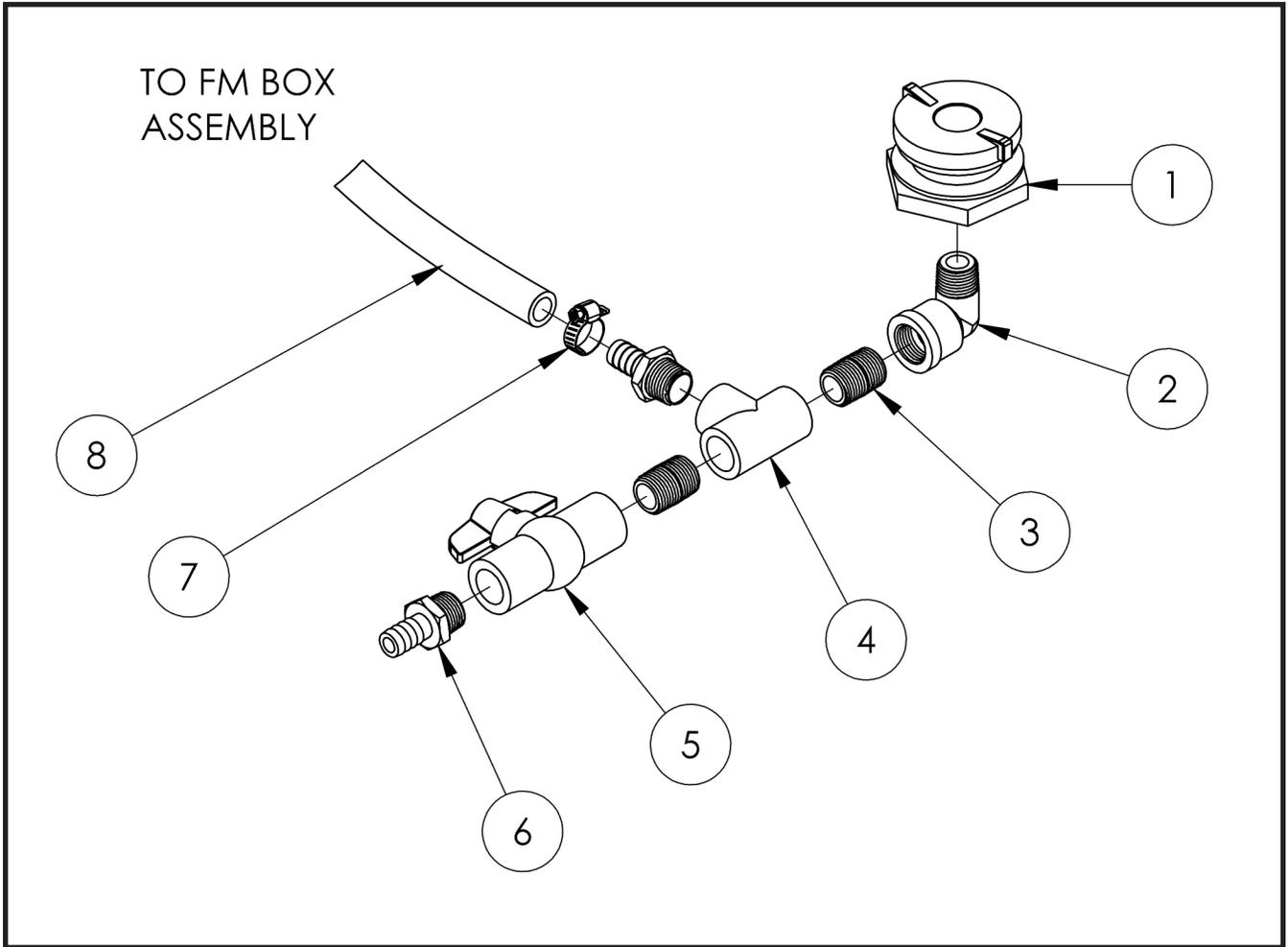
FM20 PLUMBING ASSEMBLY DIAGRAM & PARTS LIST

TO FM BOX
ASSEMBLY



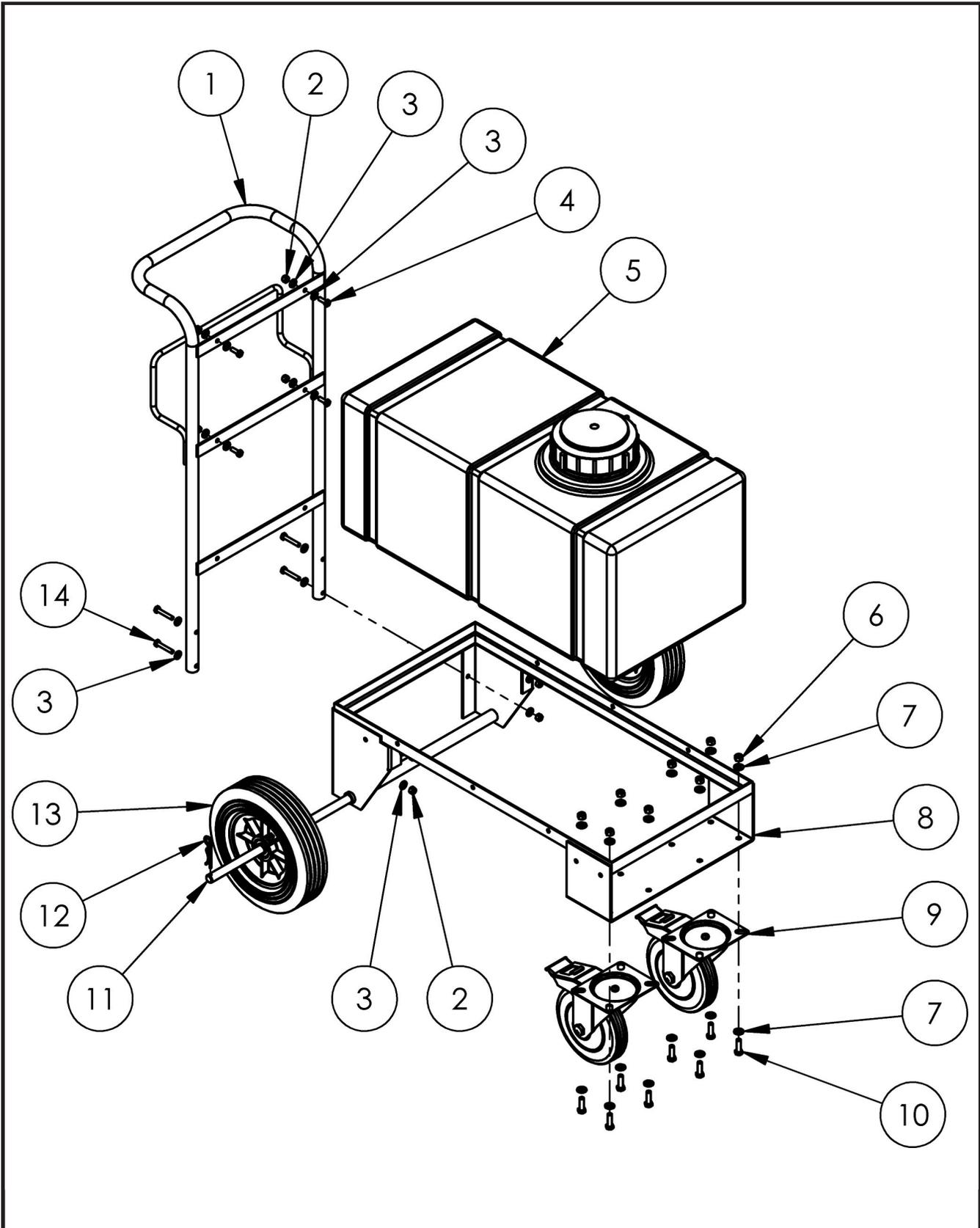
ITEM #	DRAMM#	DESCRIPTION	QTY.
1	220500	FITTING BLKHD 1/2FPT	1
2	220127	ELBOW ST 1/2 PT NY	1
3	220005	1/2" MPT CLOSE NIPPLE CPVC	2
4	220602	1/2" FPT TEE PVC	1
5	230029	1/2" FPT PVC BALL VALVE	1
6	220211	1/2" NPT X 1/2" HOSE BARB NYLON	2
7	220403	3/4" HOSE CLAMP	2
8	250040	1/2" HOSE	34"

FM50 PLUMBING ASSEMBLY DIAGRAM & PARTS LIST



ITEM #	DRAMM#	DESCRIPTION	QTY.
1	220505	FITTING BULKHEAD 3/4 FPT HD	1
2	220127	ELBOW ST 1/2 PT NY	1
3	220005	1/2" MPT CLOSE NIPPLE CPVC	2
4	220602	1/2" FPT TEE PVC	1
5	230029	1/2" FPT PVC BALL VALVE	1
6	220211	1/2" NPT X 1/2" HOSE BARB NYLON	2
7	220403	3/4" HOSE CLAMP	1
8	250040	1/2" HOSE	38"

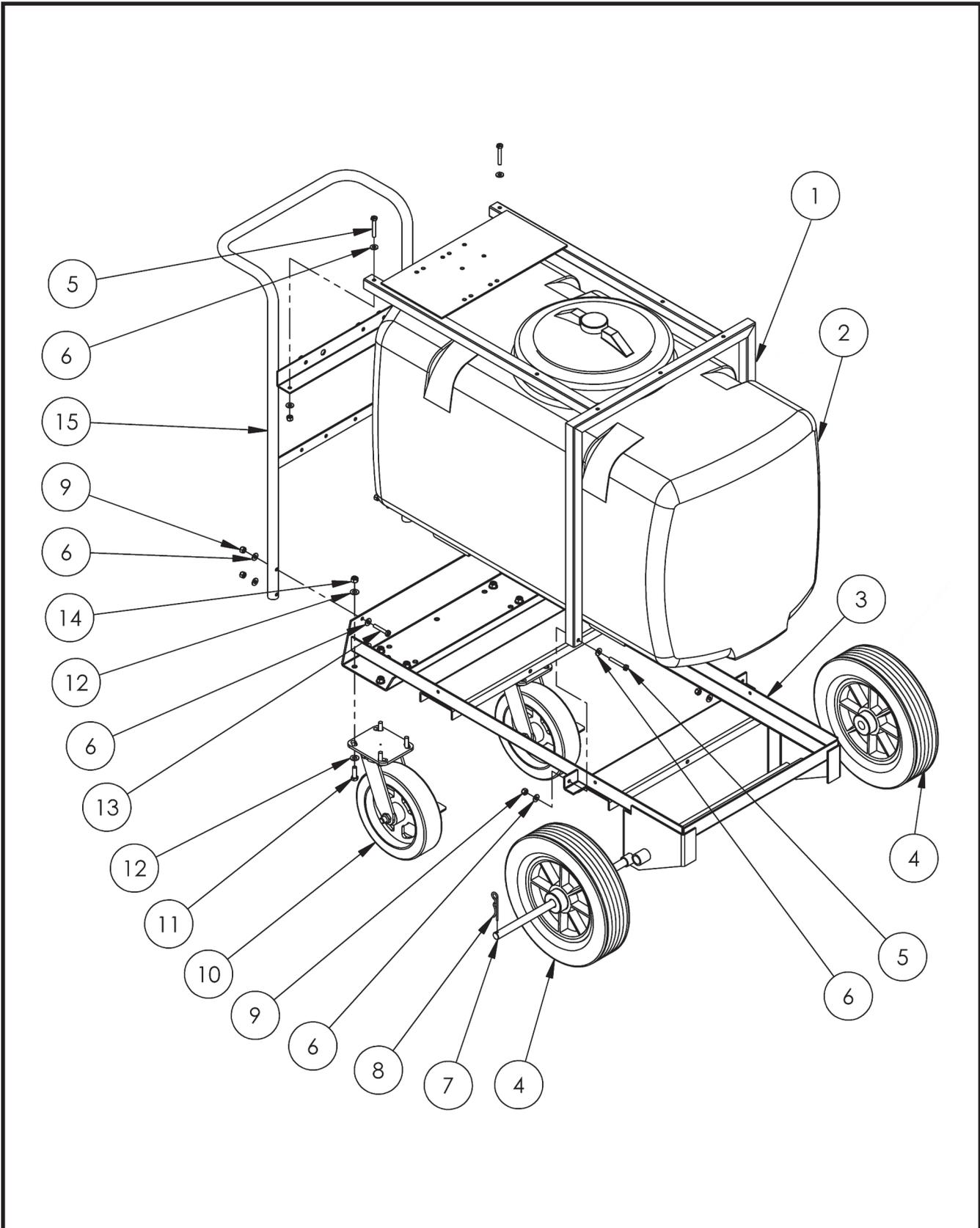
FM20 FRAME ASSEMBLY DIAGRAM



FM20 FRAME PARTS LIST

ITEM #	DRAMM#	DESCRIPTION	QTY.
1	D11711 V	20 GAL CART HANDLE VINYL	1
2	110275	1/4"-20 NYLON LOCK NUT	8
3	110300	1/4" FLAT WASHER	16
4	110002	1/4"-20 X 3/4" HHCS	4
5	610020	20 GALLON TANK	1
6	110276	5/16-18 NYLON LOCK NUT	8
7	110301	5/16 WASHER	16
8	D11093A V	20 GALLON CART BASE ASSEMBLY	1
9	500051	6" CASTER	2
10	110022	5/16-18 X 1" LG HHCS GR.5	8
11	D11098B	AXLE SHAFT	1
12	118100	1/8" HAIR PIN	2
13	500006	10" X 2" WHEEL	2
14	110006	1/4"-20 X 1.50" HHCS	4

FM50 FRAME ASSEMBLY DIAGRAM



FM50 FRAME PARTS LIST

ITEM #	DRAMM#	DESCRIPTION	QTY.
1	D11816	FRAME UPPER	1
2	610050	50 GALLON TANK ASSEMBLY	1
3	D11813	FRAME WELDMENT ASSEMBLY	1
4	500001	WHEEL 3 X 12	2
5	110007	1/4-20 X 1.75" HHCS	4
6	110300	1/4" FLAT WASHER	16
7	D11820A	AXLE	1
8	118100	1/8" HAIR PIN	2
9	110275	1/4"-20 NYLON LOCK NUT	8
10	500050	SWIVEL CASTER 2 X 8	2
11	110022	5/16-18 X 1" LG HHCS GR.5	8
12	110301	5/16 WASHER	16
13	110006	1/4"-20 X 1.50" HHCS	4
14	110276	5/16-18 NYLON LOCK NUT	8
15	D11818	HANDLE ASSEMBLY	1

