Centrifugal Pump Foam Brush Systems

DU FB_-P



Owner's Manual #0799	
Customer Number:	Serial Number:
Model Number:	Installation Date:

IMPORTANT



Please read and understand this manual. Store in safe location for future reference.

Everyone who operates this unit should understand basic operations and safety precautions! The time you take to fully understand the proper installation, maintenance and use of the machine will prolong its service life, and assure you of trouble free operation.

When unpacking, check to make sure all the parts shown on the Parts Breakdown near the end of this manual are included. If any parts are missing or broken, please call Dultmeier Sales as soon as possible.

Consumers should notice that this manual may differ slightly from the actual product as more improvements are made to our products. Some of the pictures in this manual may differ slightly from the actual product as well. Dultmeier Sales reserves the right to update designs and / or change the specifications at any time without incurring any obligation to install them on units previously sold.

If you have any questions or suggestions about this manual, please contact us at:

800-228-9666
dultmeier@dultmeier.com
www.dultmeier.com

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To avoid serious or fatal personal injury or major property damage, read and follow all safety and operation instructions in the manual.

This is a **Safety Alert Symbol** -
When you see this symbol in the manual, look for the following signal words & be alert to the potential for personal injury or property damage.

DANGER Warns of potential hazards that **WILL** cause serious personal injury, death or property damage.

WARNING Warns of potential hazards that **CAN** cause serious personal injury, death or property damage.

CAUTION Warns of potential hazards that **WILL** or **CAN** cause minor personal injury, death or property damage.

IMPORTANT Indicates special instructions that **MUST** be followed but not related to hazards.

This manual is intended to assist in the installation and operation of this unit.
Do not attempt to operate this unit without reading and understanding this manual.

General Safety

To avoid the risk of serious bodily injury and property damage, read safety instructions carefully before installing this system. Follow all local and/or national plumbing and electrical codes when installing.

IMPORTANT

Do Not Allow System or Components to Freeze.
To do so may damage the system and will void the warranty.

WARNING

Never Run the System Dry.
Running the unit dry (without fluid) can damage internal parts, overheat pump (which can cause burns to people handling or servicing the pump), and will void the warranty.

WARNING



Hazardous voltage can shock, burn or cause death.

Risk of Electric Shock.
Keep the unit dry at all times -
Do not wash the motor or electrical panel or allow the unit to sit in standing water.

Use only Ground Fault Circuit Interrupter (GFCI) protected grounded outlet for the cord plug.
If you must use an extension cord, use only UL approved indoor/outdoor, 3-wire, grounding type cords. The cord must be rated to support amp draw. Do not allow any part of cord or receptacle ends to sit in water.

To avoid fatal shocks, proceed as follows if service is needed:

A. Turn off water to the system.
B. Disconnect the power at main electrical service before unplugging the unit.
C. Ground the electrical outlet box.
D. Take extreme care when changing fuses.



Do not run the unit with discharge shut off, as hose may burst or damage may occur.



Modern motors can operate at high temperatures. To avoid burns when servicing pump, allow it to cool for 20 minutes after shutdown before handling.

Foam Brush System Specifications

Model(s)	DU FB_-P
Style	Centrifugal Pump
Motor	3/4 HP, 1 PH
Pump	EA 70-17DE
Capacity	17 GPM*
PSI	30*
Dimensions	Approx. 50”H x 32”W x 14”D
Shipping Weight	Approx. 85 lbs.

* Rates based on unrestricted pump outlet. Not through solenoid, bay hose, etc.

System Features

Stainless Steel Close-Coupled Centrifugal Pump

Foamer Modules for each Bay

Stainless Steel Automatic Mixing Tank with Hydrominder Valve

Stainless Steel Solenoids with Metering Screws

Brush Handle Assemblies with Hoses and Fittings

Stainless Steel Support Frame

Turtle Wax® Brush Soap

Pre-Wired Electrical Box

Stainless Steel Wall Booms

Bay Instruction Signs

Weep System for Freeze Prevention

Hogs Hair Brushes

Brush Buckets to Help Keep Brushes Clean

Supply Hoses, Run Tubing & Fittings

Plumbing

1. Select a location for your Foam Brush System. Locate near water and electrical sources, and floor drain. Surface must be level.

2. Run a 3/4” soft water city pressure line to female garden hose connector on inlet of chemical mix tank. (Fig. 1-A)

IMPORTANT Do not turn on the water at this time.

IMPORTANT It is recommended that soft water supply is used if available.

IMPORTANT Water supply pressure should not exceed 60 PSI. Plumber to supply pressure regulator if required.

3. Connect a hard water weep line to the weep manifold on the Foam Brush System. (Fig. 1-B)

IMPORTANT When weep is turned on, pump and air pressure may need adjustment to compensate for more water in lines.

4. Run a 3/8” air supply hose from the air regulator to the air compressor (not supplied) outlet. Fasten with hose clamps. (Fig. 1-C)



Figure 1

Electrical

DANGER All electrical connections should be made by a qualified electrician and done according to all local codes.

1. Foam Brush System is pre-wired on the high voltage side. If you purchased a 110 volt unit, simply plug it into a 20 amp outlet. If you purchased a 220 volt unit it will need to be hard wired into service by an electrician.

2. Electrician to run 18/2 Control Cable from terminals in Pump Station Electrical Panel labeled Foam Brush and 24V common, to terminals on Foam Brush System Electrical Panel labeled 24V common and Bay 1, 2, 3, etc.. (Fig. 2)

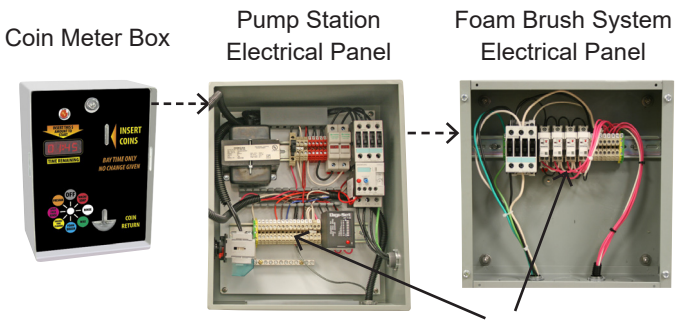


Figure 2

Pump Station Bay 1 goes to Bay 1 on the Foam Brush System. Pump Station Bay 2 goes to Bay 2 on the Foam Brush System, etc.
And the 24V Common would all tie together.

FOR EXAMPLE



Chemical Setup

1. Select proper mix tip (provided) for soap and set aside for future installation.

   Consult Hydrominder instructions and chemical product label for further dilution information.

2. Attach chemical suction tube to inlet port on eductor and place other end with foot valve strainer and weight into bulk soap container.

3. Attach discharge tube assembly with orifice side up to eductor outlet. (Fig. 3)

4. Run beaded chain on float assembly through eyelet of yoke. (Approx. 6” of chain) (Fig. 3-A)

Purging Air out of the Chemical Suction Tube

5. Turn the water on slowly until the chemical suction tube fills with soap.

6. Remove the chemical suction tube.

7. Now, install the mixing tip set aside earlier.

8. Reinstall the chemical suction tube.

9. Fill tank to 2/3 capacity. The level is set by changing the length of the beaded chain on the float assembly. (Fig. 3)

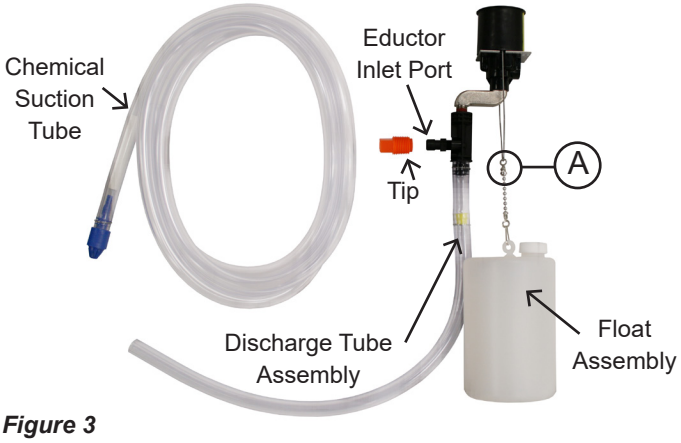


Figure 3

Purging Air out of the Chemical Suction Tube

After the air is purged, remove any water left in the tank or add a higher concentrate of chemical to adjust for the water level. This will ensure you get a more consistent foam.

Helpful Hint !



Chemical Adjustment Notes

Mounting Bay Equipment & To Bay Plumbing

1. Install boom bumper to end of boom. (Fig. 4-D)

2. To mount boom(s), in bay(s) use the boom bracket holes for a template. Place the boom bracket with the single hole on top & the two holes on the bottom level against the wall and mark a spot for each mounting hole. Since all applications are different, be sure to use the proper fasteners to secure boom bracket(s) to bay wall(s). (Fig. 4-E)

3. Slide the top pivot shaft on the boom up into the top hole of the boom bracket. Slide the bottom pivot shaft into the right or left hole of the boom bracket, depending on swing.

4. Place the foam brush manifold as close as possible to foam brush boom. Run the 3/8" braided hose from the boom (Fig. 4-H) to the discharge of manifold. (Fig. 5-H) Secure with clamps.

5. Run 1/4" tubing (provided), from air and chemical solenoids on Foam Brush System (Fig. 6) to the manifold. (Fig. 5-I) Repeat this step per bay.

6. If you purchased the optional brush holder part number D627SS, mount the brush holder approx. 60" above floor level. Skip ahead to Step 9.

7. Mount the brush bucket at floor level. The weep and floor heat system should ensure that the brush does not freeze. The water will flow over the bucket and will help keep the brush clean and free of debris.

8. Position the hose hook on the wall directly above the center of the foam brush bucket approx. 72" from floor level. (Fig. 4-F)

9. Connect brush handle to foam brush head.

10. Connect hose from boom to brush assembly. (Fig. 4-G)

11. Hang foam brush instruction sign.

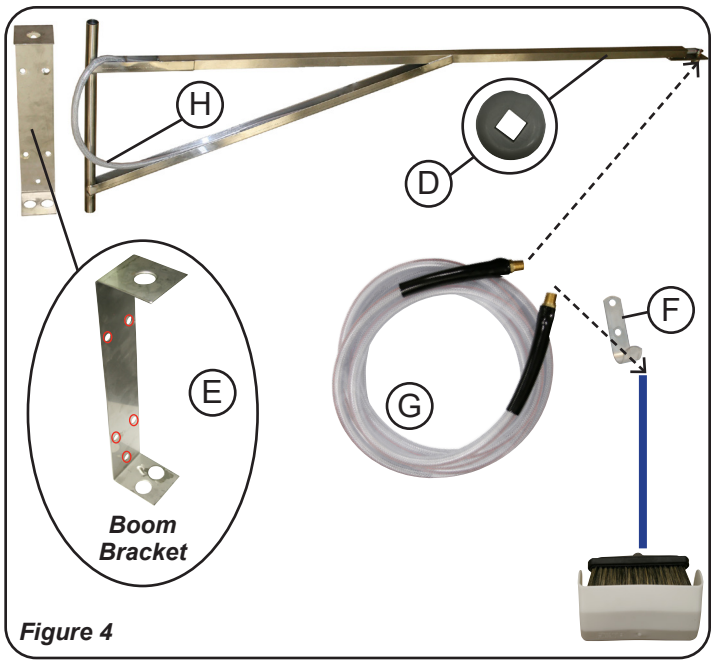


Figure 4



Figure 5 Foam Brush Manifold

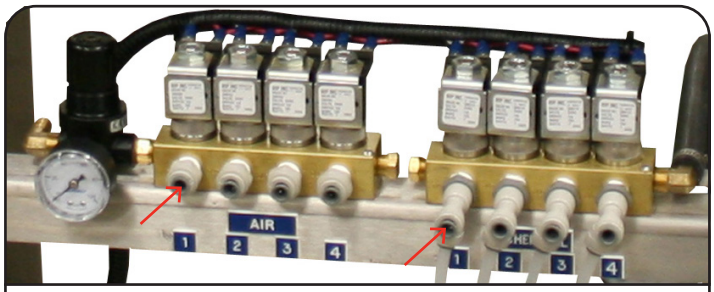


Figure 6

Testing & Operation

CAUTION **Unit must be primed before running the pump. Failure to do so can cause damage and will void the warranty.**

1. With the chemical tank 2/3 full, remove the plug from the top side of the pump. When chemical begins to flow out of pump, replace the plug. (Fig. 7)

2. Check that all breakers are on, unit is plugged in, hoses are hooked up, all clamps and fittings are tight, and there are no leaks.

3. Set air pressure to about 20 PSI to start. Further adjustment may be required.

IMPORTANT **Air pressure must be lower than pump pressure or air will override the chemical.**

To save time, having an assistant is recommended for these next steps.

Helpful Hint !



4. One bay at a time go out to bay and move selector switch to Foam Brush position.

5. On Pump Station Electrical Panel turn the Test Switch to the On position.

6. The Foam Brush Unit should now turn on and come up to pressure.

7. Check for proper flow and foam consistency. Repeat this step per bay.

8. Each bay can be adjusted individually by turning the metering screw on the chemical solenoids. (Fig. 8)

9. Test weep system on all bays. Turn metering screw up and down to assure adequate flow. Chemical and Air adjustments will be required when using weep. (Fig. 9)

10. Return Test Switch to the Off position.

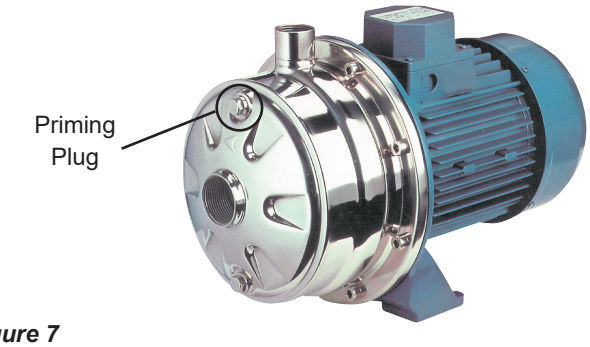


Figure 7

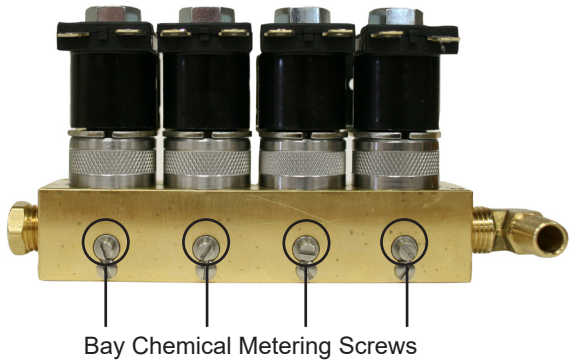


Figure 8

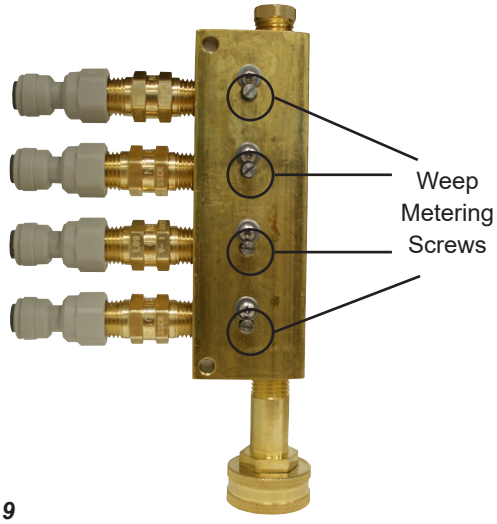
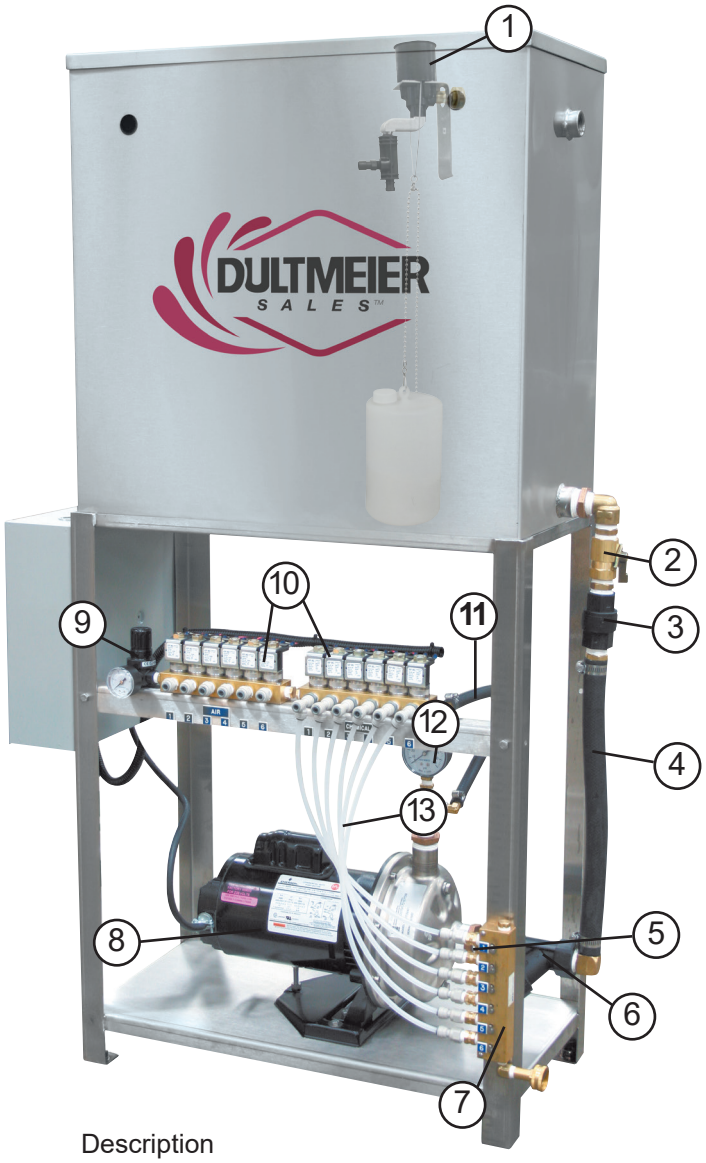


Figure 9

Parts Breakdown: DU FB_-P



Item	Part Number	Description
1	HR 507	HydroMinder *
2	SM 3306-305	Brass Ball Valve, 3/4”
3	SM 687-12E	EPDM Check Valve, 3/4”
4	GA 3204EB-3/4	Black Adaptaflex Hose, 3/4”
5	GE 1VC-250	Check Valve, 1/4”
6	IP FY34	Y Line Strainer, 3/4”
7	GC 9_-000-21M	Brass Manifold with Metering Screws, _ Bay [1]
8	EA 70-17DE	Stainless Steel Pump Unit, 3/4HP 1PH, EPDM Seal
9	GN 2Z767	Air Regulator, 1/4”
10	KI 2X910VM_	_ Kip Manifold less Metering Screws [2]
11	GA 3204EB-3/8	Black Adaptaflex Hose, 3/8”
12	AH 1DP100	100# Dry Gauge
13	FC UP44-100N	Natural Poly Tubing, 1/4”

**Hydrominder comes with: Chemical Suction Tube, Discharge Tube Assembly, Float Assembly, & Metering Tips.*

[1]Part Number Varies Per Model. Simply replace the _ with the number of bays included in your system, up to 6.
(If you purchased an 7 Bay Unit, you will need one 6 Bay part + one 1 Bay part.)
(If you purchased an 8 Bay Unit, you will need one 6 Bay part + one 2 Bay part.)

[2]Part Number Varies Per Model. Simply replace the _ with the number of bays included in your system, up to 8.

Parts Breakdown: DU FB_-P



Item	Part Number	Description
14	DD 27234	Stainless Steel Wall Boom with Bracket
15	DU 4B-7	Low Pressure Boom Hose, 3/8” x 10’
16	TU SS3	In Bay Turtle Wax® Sign
17	DD A8401	Wall Boom Bumper, Grey
18	TE 20145	Foam Brush Hose, 3/8” x 15’
19	BC 919	Stainless Steel Hose Hook
20	DU 50FBM	In Bay Foam Module
21	FB 595	Economy Foam Brush Head
22	TP 1260	Foam Brush Bucket, 11” x 6”
23	TU HP74-5	Turtle Wax Foam Brush Soap, 5 Gallon Box
	SM 900-3/8	*Straight Swivel (Not Shown)*
	BC 5BH	*Brush Handle, Royal Blue (Not Shown)*
	TU EQ383	*Holding Tank with Lid, 15 Gallon (Not Shown)*

Notice Regarding Manufacturer's Limited Warranty

Dultmeier Sales Limited Liability Company (hereinafter Dultmeier), notifies you that component part(s) carry a manufacturer's limited warranty provided by the manufacturer of said component part(s). These warranties do not pertain to normal wear of component part(s) that may occur within any specified period. While Dultmeier is not the manufacturer of any of the component part(s), Dultmeier will assist you in processing any and all manufacturer's warranty claim if applicable and available. Any and all manufacturer's claims must be submitted in writing to the manufacturer within the warranty periods provided by the manufacturer.

Defective component part(s) that are to be considered for manufacturer's limited warranty must be returned to the manufacturer by prepaid shipment with the applicable manufacturer's limited warranty period. If the component part(s) are deemed to be defective under the manufacturer's warranty, Dultmeier will assist in obtaining a replacement or repair of the component part(s). Said component part(s) will be returned F.O.B. Omaha, Nebraska. Replacement or repair shall be the exclusive remedy for any breach of warranty. Labor for installation, either with respect to original or replacement part or components, is not covered under the manufacturer's limited warranty.

Neither the manufacturer nor Dultmeier warrants loss of income or consequential damages for injury or commercial loss resulting from any breach of warranty or warranties stated above.

The manufacturer's limited warranty as stated does not apply to component part(s) which have been improperly installed, misused, altered, neglected, abused or not installed, adjusted, maintained, or used in accordance with applicable codes and ordinances and in accordance with the manufacturer's specifications as to such factors.

Notwithstanding Dultmeier's willingness to assist in the processing of the manufacturer's limited warranty, Dultmeier makes no warranty against infringement of the like, makes no warranty of merchantability, makes no warranty of fitness for a particular purpose, and makes no other warranty, express or implied, including implied warranty arising from the course of dealing or usage of trade.

Compliance with all local, state and federal codes regarding the installation and operation of said equipment, parts and components shall be the responsibility of the purchaser. The rights and obligations of the parties shall be governed by the laws of the State of Nebraska.

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Production Checklist

- OK NA Air set to _____PSI
- OK NA Pump set to _____PSI
- OK NA Motor Amps _____
- OK NA Motor Wired For _____
- OK NA Wire Schematic
- OK NA Wall Anchors
- OK NA Hydrominder
- OK NA Check Valves
- OK NA Electrical Connections
- OK NA Clamps Tight
- OK NA Bolts Tight & Anti-Seized
- OK NA Fittings Straight
- OK NA Tested
- OK NA Winterized

Accessories for _____Bay(s)

- OK NA Boom
- OK NA Boom Mounting Bracket
- OK NA Boom Wall Bumper
- OK NA Bay Hose
- OK NA Bay Hose Hook
- OK NA Foam Brush Head
- OK NA Foam Brush Handle
- OK NA Foam Brush Bay Sign
- OK NA In Bay Foam Manifold
- OK NA Tubing
- OK NA _____
- OK NA _____
- OK NA _____

Built By _____ Checked By _____

Customer Checklist

- OK NA Accessories Included
- OK NA Shipping Container Arrived In Good Shape
- OK NA Overall Condition

If you have any questions or concerns about condition of this unit, please contact us at 1-888-677-5054 before operating.