



LIFT STATION AGITATOR



Installation & Operation Manual

Document number 636565
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QUESTIONS?



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SAFETY FIRST

IMPORTANT: PLEASE READ THIS MANUAL AND SAVE FOR FUTURE REFERENCE

WARNINGS:



Electrical Shock Hazard

- Use caution when dealing with any electrical equipment.
- Consult a qualified electrician for electrical installation.

UNIT SPECIFICATIONS

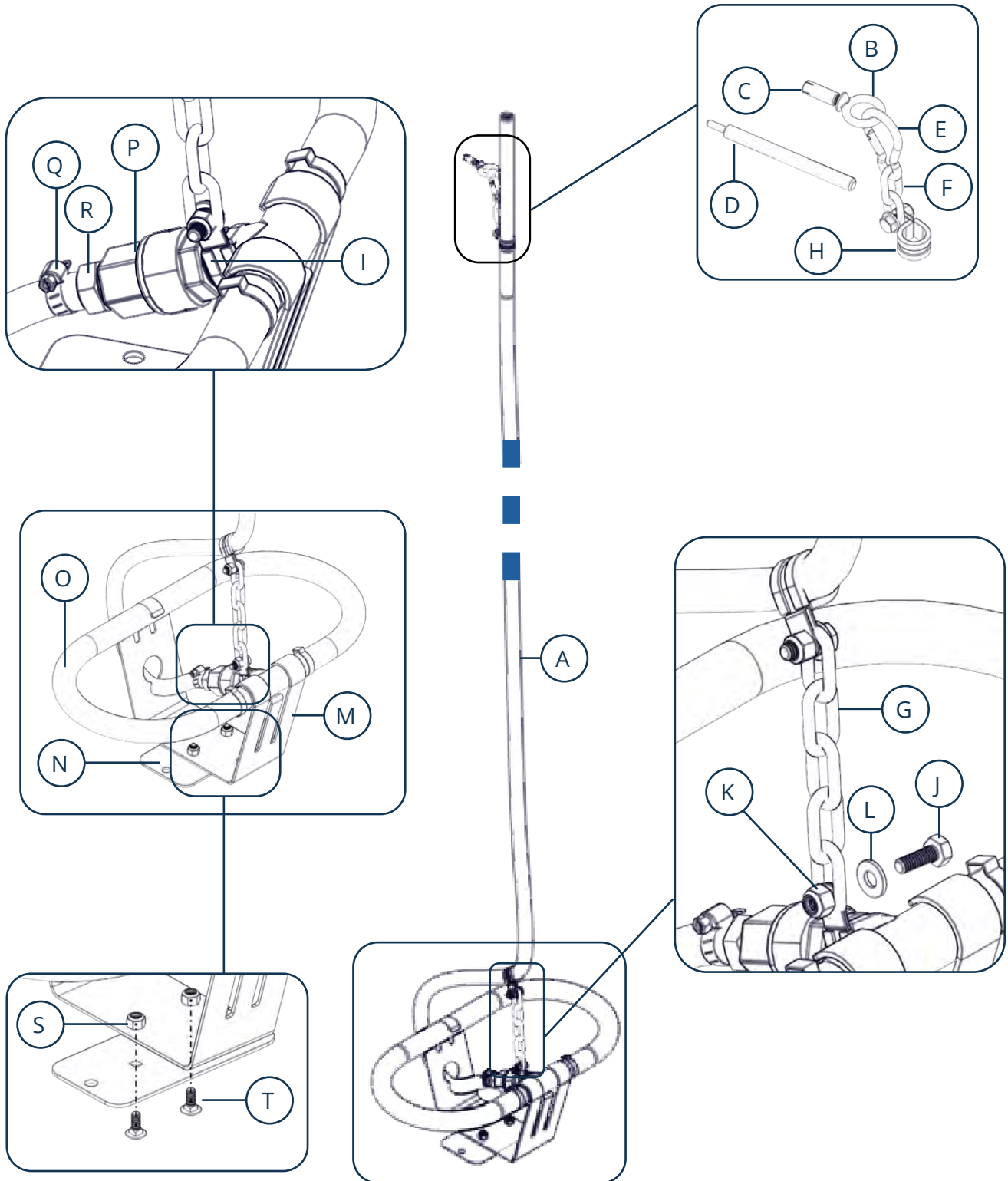
Model Number	Number of diffusers	Voltage	Phase	Compressor HP	Amps	Number of 50-ft. rolls of 3/8" tubing included
LS-125	1	120V	1	1/4	2.5	1
LSH-125	1	208-240V		1/4	1.25	1
LS-225	2	120V		1/4	2.5	2
LSH-225	2	208-240V		1/4	1.25	2

PARTS INCLUDED LIST

			LS(H)-125	LS(H)-225
Item	Description	Part No.	Qty.	
Tubing Suspension Kit (PN: 636560)				
A	SureSink Tubing - 50 ft.	773375	1	2
B	Eyebolt	566222	1	2
C	Concrete anchor	566220	1	2
D	Anchor installation tool	566221	1	2
E	Snap hook	636346	1	2
F	2-link chain	636383	1	2
G	5-link chain	636385	1	2
H	Small strain relief - 5/8"	772019	2	4
I	Large strain relief - 1"	772020	1	2
J	1/4"-20 x 3/4" hex head screw	840539	3	6
K	1/4"-20 nylon locknut	451100	3	6
L	1/4" flat washer	258476	6	12
Single-loop Diffuser Kit (PN: 772200)				
M	Diffuser substrate	772030	1	2
N	Baseplate	772201	1	2
O	Diffuser loop kit	772039	1	2
P	Inlet check valve assembly	772033	1	2
Q	Hose clamp	773008	1	2
R	3/8" hose barb	773012	1	2
S	1/4"-20 nylon locknut	451100	2	4
T	1/4"-20 x 5/8" carriage bolt	772034	2	4
Barb Fitting Kit (PN: 636389)				
U*	Splice barb fitting	636386	1	2
V*	Tee barb fitting	636387	1	2
W*	Cross barb fitting	636388	1	2
X*	Hose clamp	773008	4	8

*Not pictured in parts included illustration.

PARTS INCLUDED ILLUSTRATION

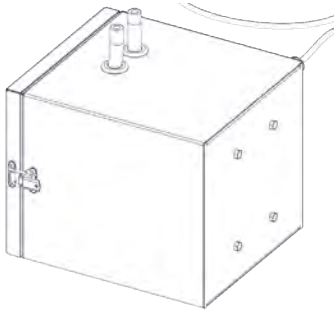


STAINLESS STEEL CABINET INSTALLATION

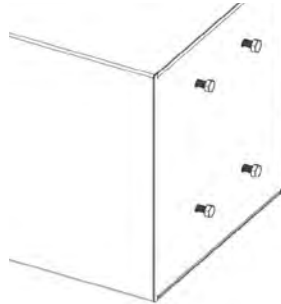
Secure the mounting bracket to ground, post, or vertical wall (shed) with electrical service.

Place the cabinet adjacent to the electrical service which will power the system. The cabinet has a 6-foot power cord with a plug. **DO NOT USE EXTENSION CORDS.**

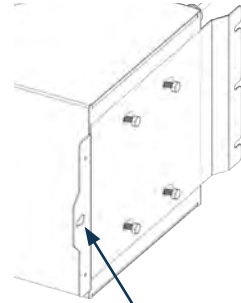
- 1** Place the cabinet on its side with the diffuser tubing connections facing up.



- 2** Use a 7/16" socket or wrench to loosen the four bolts on the bottom of the cabinet until they are sticking out 1/8".

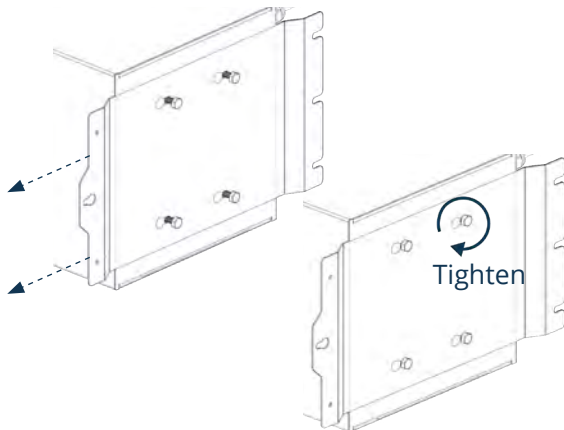


- 3** Place the mounting bracket over the bolt heads.

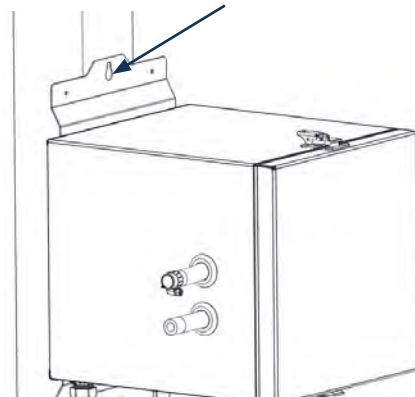


The mounting hole should be on the opposite side of the power cord.

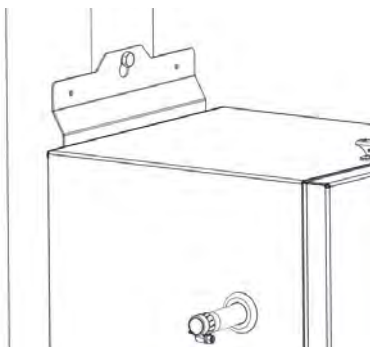
- 4** Slide the bracket until the bolt heads are interlocked with the narrow grooves. Tighten bolts with 7/16" socket or wrench.



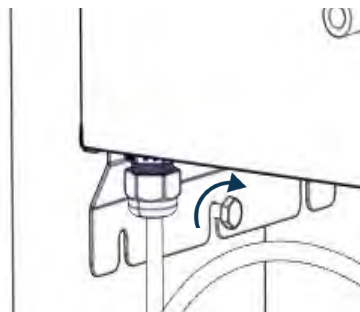
- 5** Level and center the top single mounting hole to mark the lag screw location.



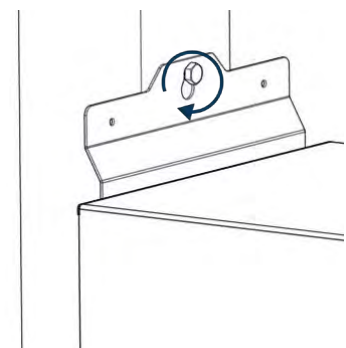
- 6** Pre-drill a 5/32" hole on the marked location. Insert a lag screw. Do not fully tighten.



- 7** Pre-drill a 5/32" hole in the middle notch on the bottom of the bracket. Insert a lag screw. Tighten to secure to the post.



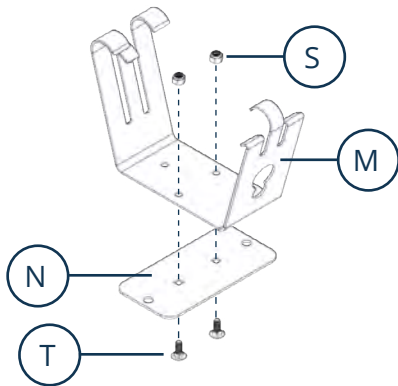
- 3** Tighten the top lag screw until the bracket is secure to the post.



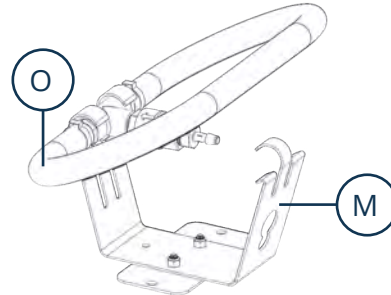
ASSEMBLY INSTRUCTIONS

NOTE The following process supports up to 70lbs. For high-accumulation areas such as under inlets, install with caution. The holes on the baseplate (N) can be used to suspend it via chain or cable for added strength.

- 1 Attach the diffuser substrate (M) to the baseplate (N) using the carriage bolts (T) and the nylon locknuts (S).

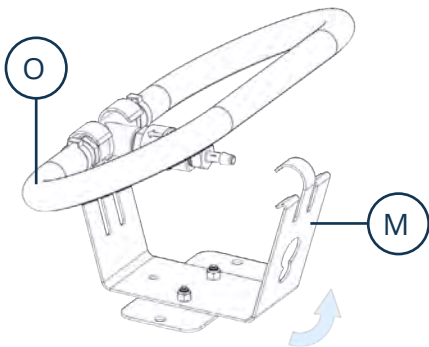


- 2 Hook the two-pronged side of the substrate (M) around the tee fitting of the diffuser loop (O).

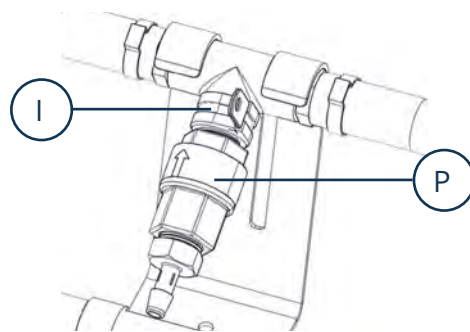


NOTE Ensure that the blue line on the diffuser loop is facing down.

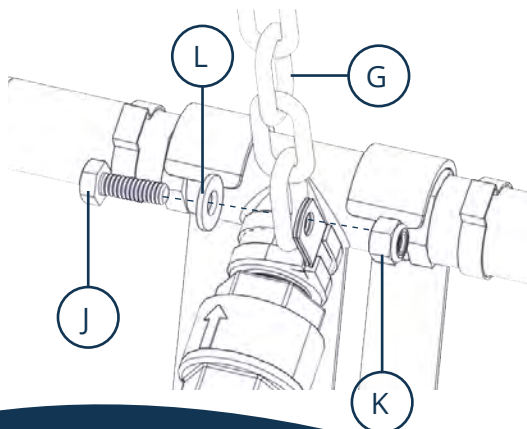
- 3 Pivot the single-pronged side of the substrate (M) up and over the other side of the diffuser loop (O).



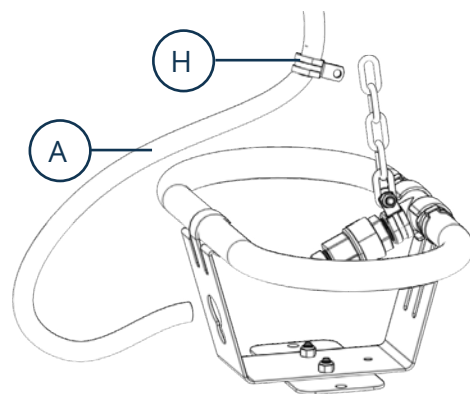
- 4 Slide the large strain relief (I) over the inlet check valve (P).



- 5 Connect the 5-link chain (G) to the large strain relief using a hex head screw (J), locknut (K), and washer (L).

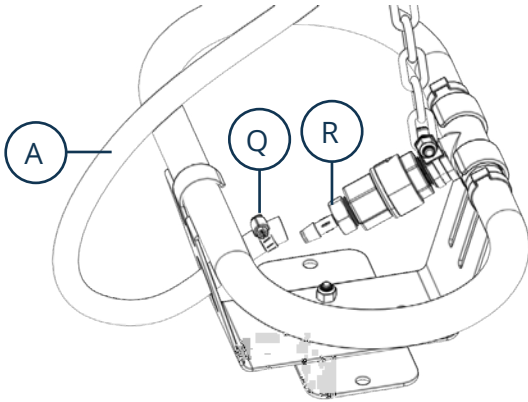


- 6 Slide the small strain relief (H) over the SureSink tubing (A) as shown.

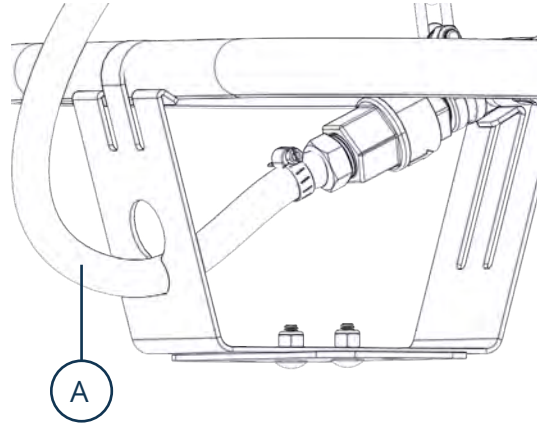


ASSEMBLY INSTRUCTIONS

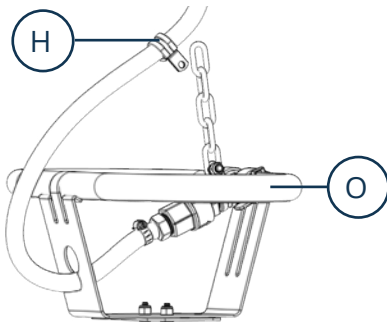
- 7** Angle hose barb (R) toward the keyhole cutout. Run tubing (A) through the wide hole. Secure it to the barb with the hose clamp (Q).



- 8** Firmly press tubing (A) into the narrower part of the keyhole to create a strain relief for the diffuser.

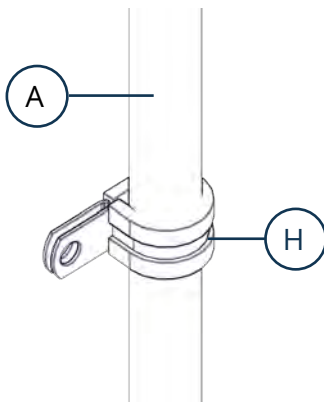


- 9** Position the small strain relief (H) to sit over the center of the diffuser loop (O).

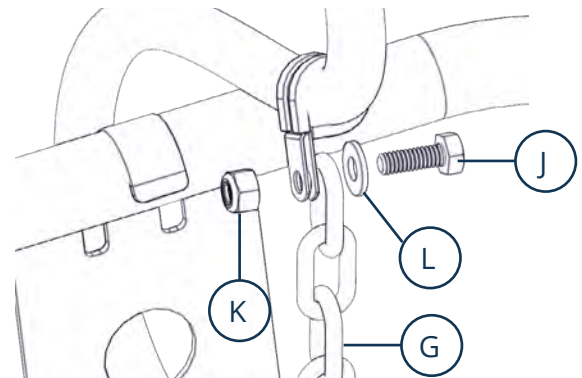


NOTE This step sets the diffuser's positioning. The more vertical, the better the mixing.

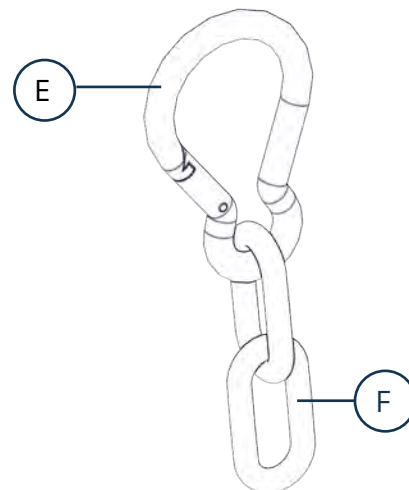
- 11** Slide a second small strain relief (H) over the other end of tubing (A).



- 10** Attach the free end of the 5-link chain (G) to the small strain relief with a hex head screw (J), locknut (K), and washer (L) and tighten.

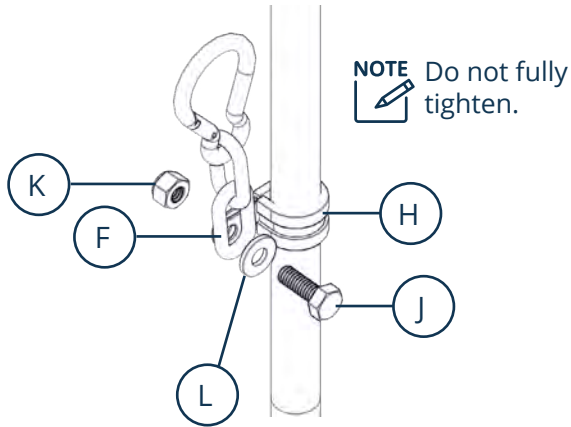


- 12** Attach the snap hook (E) to the 2-link chain (F).

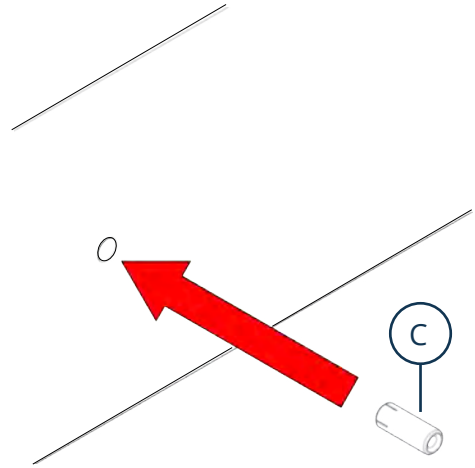


ASSEMBLY INSTRUCTIONS

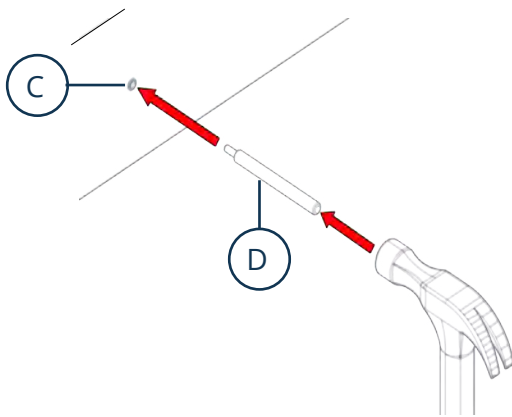
- 13** Attach the free end of the 2-link chain (F) to the small strain relief (H) with a hex head screw (J), locknut (K), and washer (L).



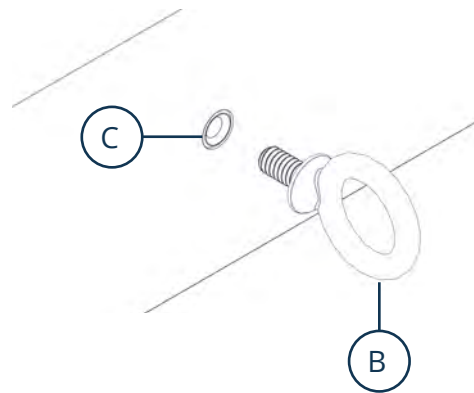
- 14** Drill 1" deep hole with a 3/8" masonry drillbit. Insert concrete anchor (C) with the female thread facing toward the center of the hatch.



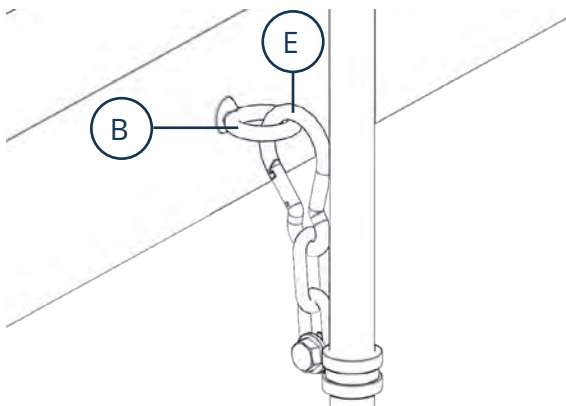
- 15** Insert installation tool (D) into anchor (C). Hammer until anchor is fully seated and flush with the surface.



- 16** Insert the eyebolt (B) into the anchor (C) and tighten.



- 17** Clip the snaphook (E) to the eyebolt (B).

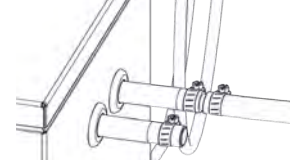
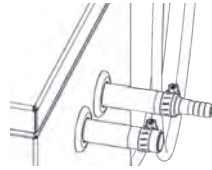
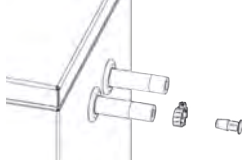


- 18** Position diffuser to desired height in lift station and tighten the small strain relief.

TUBING CONNECTION

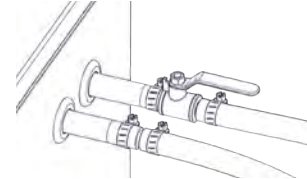
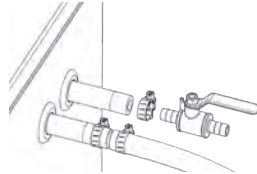
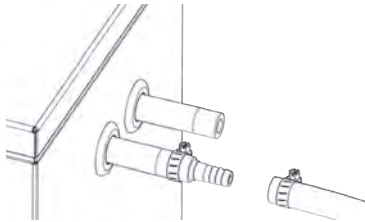
LS-125 & LSH-125 SYSTEMS

- 1 Seal one tube using the provided 3/8" hose plug and hose clamp.
- 2 In the second tube, insert provided 3/8" barb fitting and secure using a hose clamp.
- 3 Connect SureSink tubing to exposed side of barb fitting and secure with hose clamp.



LS-225 & LSH-225 SYSTEMS

- 1 Follow steps 2 & 3 from DA1 & DAH1 instructions to connect first roll of SureSink tubing.
- 2 Insert provided valve into second tube and secure using a hose clamp.
- 3 Connect SureSink tubing to exposed side of valve and secure with hose clamp.



NOTE The valve is designed to help balance air flow between the two diffusers.

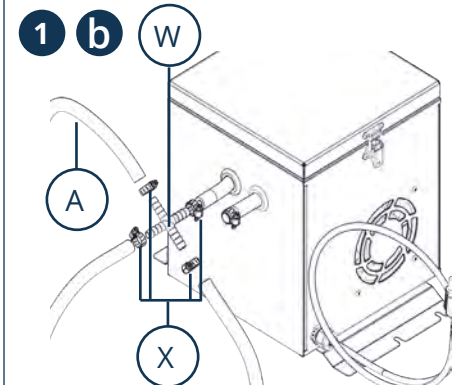
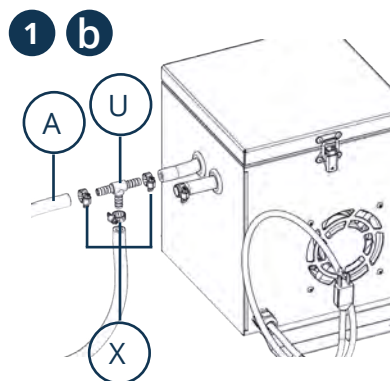
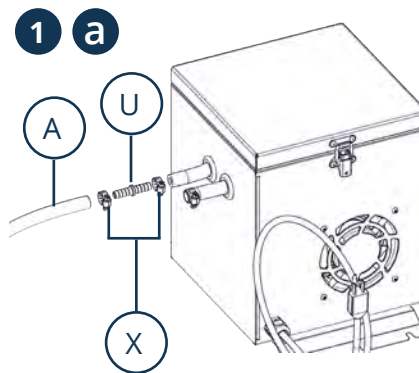
OR

Select the appropriate brass barb fitting provided in the barb fitting kit:

- a. Straight splice fitting (U) for a one diffuser installation.
- b. Tee fitting (V) for a two diffuser installation.
- c. Cross fitting (W) for a three diffuser installation.

- 1 Connect one end of selected barb fitting to outlet lead hose from compressor and secure with hose clamp. Connect free end of SureSink tubing (A) to remaining barb fitting and secure with hose clamp (X).

NOTE SureSink tubing will need provisions to pass through, or around, hatch and back to compressor. Tubing OD is 0.68".



FILTER MAINTENANCE

Warning! Product surfaces become very hot during operation. Allow compressor to cool before servicing. Disconnect electrical power before performing maintenance.

- Check filter monthly.
- Failure to maintain clean air filter will lead to excessive heat and premature failure of the compressor.
- Preventative maintenance kit part number: 774470
- Air filter part number: 771014

To access the intake filter:

Remove the lid of the cabinet. Lift up on the outside edge of the toggle latch to loosen. Do this on both sides.



To access the pre filter:

Remove the lid of the cabinet. Lift up on the outside edge of the toggle latch to loosen. Do this on both sides.



WINTER OPERATION



The system owner assumes all risks of operating the HydraForce Lift Station Agitator during winter months.

In climates where temperatures fall below freezing, Kasco recommends insulating the air lines from the compressor cabinet to 3 feet below the lift station/wet well lid. Prevent ice buildup in the lines by using closed cell polyurethane foam to insulate. Ice buildup can block the flow of air to your diffuser and cause damage to your compressor.

TROUBLESHOOTING

“Compressor and fan are not running.”

- Ensure the power cord is connected. Check if the user supplied GFCI circuit is tripped. Reset as necessary

“The fan is running but the compressor is not”

- Inspect the compressor and capacitor wiring and connections.

“The compressor and fan are running, but there are no bubbles coming out of any diffusers”

- Check for leaks in line connections and at the compressor. Check connections for tightness.

“The compressor and fan are running. There are bubbles coming out of some diffusers, but not all of them.”

- The valves in the cabinet may need to be balanced. There may be a clogged diffuser that needs to be cleared. The compressor may be due for a rebuild.

“The compressor stops and restarts”

- Ensure the fan is working properly. Capacitor may need replacement.

Please contact Kasco or your distributor if any problems persist.

WARRANTY

Warranty Period

Warranty period: LS(H)-125 & LS(H)-225 = 2 years



If replacement is required, please contact Kasco at support@kascomarine.com or call 715-262-4488 as **we do not accept the diffuser or weighted tubing for repair.**

Kasco® Marine, Inc. warrants this system to be free from defects in material or workmanship under normal use and service. The Kasco Marine, Inc. obligation under this warranty is limited to replacing any component or repairing compressors within the warranty period free of charge. The customer shall pay shipping charges for returning the compressor to Kasco or an Authorized Repair Center.

THIS WARRANTY IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, AND ANY OTHER OBLIGATION OR LIABILITY WHATEVER ON THE PART OF KASCO MARINE, INC. AND IN NO EVENT SHALL KASCO MARINE, INC. BE LIABLE FOR ANY SPECIAL OR CONSEQUENTIAL DAMAGES.

Warranty is void if:

- The system is not maintained properly according to the maintenance recommendations supplied in this manual.
- The system is damaged by unauthorized tampering.

Warranty Claim Procedure

The best method for establishing warranty period is via the original receipt. Also, register the unit online at: www.kascomarine.com. Once the warranty coverage has been established, the compressor may be sent to any Kasco Authorized Repair Center for evaluation and repair. Please call Kasco at 715-262-4488 prior to shipping to receive any updated information and/or Repair Form, or call to locate your nearest Authorized Repair Center. You can also email Kasco at support@kascomarine.com.

Please include the repair form received from Kasco or your local distributor with the shipment. If no repair form is available, include your name and physical address for return delivery of the repaired compressor and a daytime phone number and/or email address for correspondence regarding the warranty claim. Any expedited shipping method for the return of the compressor is at the customer's expense. Kasco will return compressors repaired under warranty at our expense via ground freight within the continental United States.



Please attach a repair form with the shipment. The repair form must include a name, physical address (for return delivery of the repaired unit), daytime phone number, and an e-mail address for correspondence regarding the warranty claim.

Any expedited shipping method for the return of the compressor is at the customer's expense. Kasco will return compressors repaired under warranty at our expense via ground freight within the continental United States.

OTHER REPAIRS

Most failed equipment can be repaired at substantially lower costs than replacement with new equipment. Please ship according to the instructions provided.

Kasco does estimates on repairs at the request of the customer. The request for an estimate should be included in the letter that accompanies the returned compressor and must include a daytime phone number and/or email address. Estimate options are as follows:

- We will contact the customer with a total estimated cost for repairs after we have evaluated the compressor but before we perform the work.
- We will repair the unit only if repair costs are under a dollar amount stated by the customer. Example: "Please repair if total is under \$150.00 before shipping charges."

All estimates that are rejected for repair will be destroyed unless otherwise directed by the customer. If the customer would like the compressor returned, we will restore the compressor as closely as possible to the condition in which we found it and ship at the customer's expense (including shipping and handling charges).

Billing: Kasco accepts Visa and MasterCard credit card payments. Kasco will call for credit card information upon completion of the estimate at the customer's request. All other warranty and repair inquiries should be directed to Kasco at 715-262-4488 or repairs@kascomarine.com

KASCO PATENTS

To view a full list of Kasco patent and patent-pending information, visit <https://kascomarine.com/patents/>.

CONTACT US



Kasco Marine
800 Deere Road
Prescott, WI 54021



715.262.4488



kascomarine.com | support@kascomarine.com

REPAIR CONTACT FORM

- Kasco requires that all equipment sent for repair MUST be accompanied by this form and marked to Repairs attention.
- Unit should be cleaned before shipping.
- Kasco is NOT responsible for shipping damage accrued in return shipment.
- It is the responsibility of the customer to ship and pay freight to Kasco.

Kasco Marine
800 Deere Road
Prescott, WI 54021
Attn: Repairs

Note: Contact information should be that of the person or company to contact for repair information.

Company name			
Contact name	First name	Last name	
Address	Street		
	City		
	State		
	ZIP code		
Phone number	Primary	Alternate	
Email address			
Preferred method of contact (circle one)	Phone	Email	
Purchase order number			
Additional product information	Serial Number	Cord Length	
Information for Repair Technician			
Was this unit used in a chemical treatment or wastewater application? (circle one)	Yes	No	
Additional notes			