

SOLUTIONIZER

Operators Manual



 **humic**
growth solutions

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Revision: A



INTRODUCTION

Thank you for choosing USC, LLC for your equipment needs. We appreciate your business and will work diligently to ensure that you are satisfied with your choice.

OVERVIEW

The purpose of this manual is to provide you with the basic information needed to operate and maintain the Solutionizer . It does not hold USC, LLC liable for any accidents or injuries that may occur.

OPERATOR RESPONSIBILITIES

As the purchaser/owner/operator of this equipment and control system, you have an obligation to install, operate, and maintain the equipment in a manner that minimizes the exposure of people in your care to any potential hazards inherent in using this equipment. It is critical that the owner of this equipment:

- Has a clear and documented understanding of the process this machine is being used in and of any resulting hazards or special requirements arising from this specific application.
- Allow only properly trained and instructed personnel to install, operate or service this equipment.
- Maintain a comprehensive safety program involving all who work with this machine and other associated process equipment.
- Establish clear areas of staff responsibility (e.g. operation, setup, sanitation, maintenance, and repairs).
- Provide all personnel with necessary safety equipment.
- Periodically inspect the equipment to insure that the doors, covers, guards, and safety devices are in place and functioning, that all safety instructions and warning labels are intact and legible, and that the equipment is in good working order.
- In addition to the operating instructions, observe and enforce the applicable legal and other binding regulations, national and local codes.

As the person with the most to gain or lose from working safely, it is important that you work responsibly and stay alert. By following a few simple rules, you can prevent an accident that could injure or kill you or a co-worker.

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- Do not operate, clean, or service this equipment until you have read and understood the contents of this manual. If you do not understand the information in this manual, bring it to the attention of your supervisor, or call USC at (785) 431-7900 for assistance.
- Any operator who is known or suspected to be under the influence of alcohol or drugs should not be allowed to operate the equipment.
- Understand and follow the safety practices required by your employer and this manual.
- **PAY ATTENTION** to what you and other personnel are doing and how these activities may affect your safety.
- **Failure to follow these instructions may result in serious personal injury or death.**

RECEIVING YOUR EQUIPMENT

As soon as the equipment is received, it should be carefully inspected to make certain that it has sustained no damage during shipment and that all items listed on the packing list are accounted for. If there is any damage or shortages, the purchaser must immediately notify USC, LLC. Ownership passes to purchaser when the unit leaves the USC, LLC. premises. The purchaser is responsible for unloading and mounting all components of the equipment.

Document the serial number of the machine for future reference. The serial number is located on the back of the control panel mounting bracket.



*Serial
Number*

SERIAL NUMBER: _____

TABLE OF CONTENTS

<u>Section</u>	<u>Contents</u>	<u>Page #</u>
Section A	Safety Instructions.....	5
Section B	Installation	12
Section C	Mechanical Operation.....	14
	Solutionizer Overview	14
	Solutionizer Operation.....	15
Section D	Electrical Operation	17
Section E	Troubleshooting.....	18
Section F	Maintenance	19
Section G	Storage.....	20
Section H	Mechanical Drawings	22
Section I	Limited Warranty.....	31

SAFETY INSTRUCTIONS

SECTION A

Every year accidents in the work place maim, kill and injure people. Although it may be impossible to prevent all accidents, with the right combination of training, operating practices, safety devices, and operator vigilance, the number of accidents can be significantly reduced. The purpose of this section is to educate equipment users about hazards, unsafe practices, and recommended hazard avoidance techniques.

SAFETY WORDS AND SYMBOLS

It is very important that operators and maintenance personnel understand the words and symbols that are used to communicate safety information. Safety words, their meaning and format, have been standardized for U.S. manufacturers and published by the American National Standards Institute (ANSI). The European Community (E.C.) has adopted a different format based on the International Standards Organization (I.S.O.) and applicable machinery directives. Both formats are presented below. Graphic symbols are not standardized, but most manufacturers will use some variation of the ones seen in this manual.



Indicates an imminently hazardous situation which, if not avoided, **will** result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, **could** result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, **may** result in minor or moderate injury and/or property damage.



Provides additional information that the operator needs to be aware of to avoid a potentially hazardous situation.



Mandatory Lockout Power Symbol. Disconnect, lockout and tagout electrical and other energy sources before inspecting, cleaning or performing maintenance on this panel.



International Safety Alert Symbol. The exclamation point (!) surrounded by a yellow triangle indicates that an injury hazard exists. However, it does not indicate the seriousness of potential injury. The exclamation point (!) is also used with the DANGER, WARNING and CAUTION symbols so the potential injury is indicated.



Electrocution Hazard Symbol. This symbol indicates that an electrocution hazard exists. Serious injury or death could result from contacting high voltage.



International Electrocution Hazard. This symbol indicates that an electrocution hazard exists. Serious injury or death could result from contacting high voltage.



Mandatory Read Manual Action Symbol. (I.S.O. format) This symbol instructs personnel to read the Operators Manual before servicing or operating the equipment.



Mandatory Read Manual Action Symbol. This symbol instructs personnel to read the Operators Manual before servicing or operating the equipment.



Notice is used to notify people of important installation, operation or maintenance information which is not hazard related.

LOCKOUT / TAGOUT PROCEDURES

Lockout/Tagout is the placement of a lock/tag on an energy isolating device in accordance with an established procedure. When taking equipment out of service to perform maintenance or repair work, always follow the lockout/tagout procedures as outlined in ANSI Z344.1 and/or OSHA Standard 1910.147. This standard “requires employers to establish a program and utilize procedures for affixing appropriate lockout devices or tagout devices to energy isolating devices and to otherwise disable machines or equipment to prevent unexpected energizing, start-up, or release of stored energy in order to prevent injury to employees.”

HAZARD REVIEW



Electrocution Hazard

Electrocution accidents are most likely to occur during maintenance of the electrical system or when working on or near exposed high voltage wiring. This hazard does not exist when the electrical power has been disconnected, properly locked, and tagged out.



Automatic Start Hazard

This equipment may be controlled by an automated system and may start without warning. Failure to properly disconnect, lockout, and tagout all energy sources of remotely controlled equipment creates a very hazardous situation and could cause injury or even death. PLEASE STAY CLEAR AND BE ALERT.

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YOU are responsible for the **SAFE** operation and maintenance of your USC, LLC equipment . **YOU** must ensure that you and anyone else who is going to operate, maintain or work around the equipment be familiar with the operating and maintenance procedures and related **SAFETY** information contained in this manual. This manual will take you step-by-step through your working day and alert you to good safety practices that should be adhered to while operating the equipment

Remember, **YOU** are the key to safety. Good safety practices not only protect you, but also the people around you. Make these practices a working part of your safety program. Be certain that **EVERYONE** operating this equipment is familiar with the recommended operating and maintenance procedures and follows all the safety precautions. Most accidents can be prevented. Do not risk injury or death by ignoring good safety practices.

- Equipment owners must give operating instructions to operators or employees before allowing them to operate the machine, and at least annually thereafter per OSHA (Occupational Safety and Health Administration) regulation 1928.57.
- The most important safety device on this equipment is a **SAFE** operator. It is the operator's responsibility to read and understand **ALL** Safety and Operating instructions in the manual and to follow them. All accidents can be avoided.
- A person who has not read and understood all operating and safety instructions is not qualified to operate the machine. An untrained operator exposes himself and bystanders to possible serious injury or death.
- Do not modify the equipment in any way. Unauthorized modification may impair the function and/or safety and could affect the life of the equipment.
- Think SAFETY! Work SAFELY!

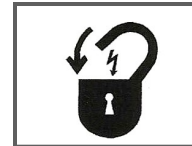
GENERAL SAFETY

1. Read and understand the operator's manual and all safety labels before operating, maintaining, adjusting or unplugging the equipment .
2. Only trained persons shall operate the equipment . An untrained operator is not qualified to operate the machine.
3. Have a first-aid kit available for use should the need arise, and know how to use it.



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4. Provide a fire extinguisher for use in case of an accident. Store in a highly visible place.
5. Do not allow children, spectators or bystanders within hazard area of machine.
6. Wear appropriate protective gear. This includes but is not limited to:
 - A hard hat
 - Protective shoes with slip resistant soles
 - Protective goggles
 - Heavy gloves
 - Hearing protection
 - Respirator or filter mask
7. Place all controls in neutral or off, stop motor, and wait for all moving parts to stop. Then disable power source before servicing, adjusting, repairing, or unplugging.
8. Review safety related items annually with all personnel who will be operating or maintaining the equipment.



OPERATING SAFETY:

1. Read and understand the operator's manual and all safety labels before using.
2. Disconnect and disable electrical supply completely and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
3. Clear the area of bystanders, especially children, before starting.
4. Be familiar with the machine hazard area. If anyone enters hazard area, shut down machine immediately. Clear the area before restarting.
5. Keep hands, feet, hair and clothing away from all moving and/or rotating parts.
6. Stay away from overhead obstructions and power lines during operation and transporting. Electrocutation can occur without direct contact.
7. Do not operate machine when any guards are removed.
8. Inspect welds and repair if needed.

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PLACEMENT SAFETY

1. Move only with the appropriate equipment
2. Stay away from overhead power lines when moving equipment. Electrocutation can occur without direct contact.
3. Be familiar with machine hazard area. If anyone enters hazard areas, shut down machine immediately. Clear the area before restarting.
4. Operate the equipment on level ground free of debris. Anchor the equipment to prevent tipping or upending.



Before placement of the equipment, be sure that ground is reasonably level. The equipment may topple or work improperly if the ground is too uneven, damaging the equipment and/or causing personal injury.

MAINTENANCE SAFETY

1. Review the operator's manual and all safety items before working with, maintaining or operating the equipment.
2. Place all controls in neutral or off, stop motors, disable power source, and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
3. Follow good shop practices:
Keep service area clean and dry.
Be sure electrical outlets and tools are properly grounded.
Use adequate light for the job at hand.
4. Keep hands, feet, hair and clothing away from all moving and/or rotating parts.
5. Clear the area of bystanders, especially children, when carrying out any maintenance and repairs or making any adjustments.
6. Before resuming work, install and secure all guards when maintenance work is completed.
7. Keep safety labels clean. Replace any sign that is damaged or not clearly visible.



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SAFETY LABELS

1. Keep safety labels clean and legible at all times.
2. Replace safety labels that are missing or have become illegible.
3. Replaced parts that displayed a safety sign should also display the current sign.
4. Replacement safety labels are available. Contact USC at (785) 431-7900 .

How to Install Safety Labels:

- Be sure that the installation area is clean and dry.
- Be sure temperature is above 50°F (10°C).
- Decide on the exact position before you remove the backing paper.
- Remove the smallest portion of the split backing paper.
- Align the sign over the specified area and carefully press the small portion with the exposed sticky backing in place.
- Slowly peel back the remaining paper and carefully smooth the remaining portion of the sign in place.
- Small air pockets can be pierced with a pin and smoothed out using the piece of sign backing paper.



Located on the USC equipment you will find safety labels. Always be sure to read and follow all directions on the labels.



Guards provided with USC equipment are to remain in place during operation.

SECTION
B**INSTALLATION**

HIGH VOLTAGE ~ Always disconnect the power source before working on or near the control panel or lead wires.



HIGH VOLTAGE ~ Use insulated tools when making adjustments while the controls are under power.

NOTICE

Permanent installation may require additional electrical cords, chemical tubing, and air lines, since each installation is unique.

SET-UP

The following steps outline the initial set-up of your USC Solutionizer :

1. Clear the area of bystanders, especially small children, before moving.
2. Be sure there is enough clearance from overhead obstructions and power lines or other equipment to move the machine into its working position.
3. Using a forklift, place the Solutionizer in the desired position on a level surface.


NOTICE

USC highly recommends that the Solutionizer be set up inside a building or any covered structure to protect the machine from weathering.

4. Inspect Solutionizer thoroughly for screws, bolts, fittings, etc. which may have come loose during shipping.
5. The Solutionizer should be placed on level ground.
6. If using tank filling method number two (see page 15), attach a two inch hose to the valve at the bottom of the tank and the opposite end to the incoming water source.
7. Attach a hose to the open fitting on the directional valve to discharge the finished product.

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- Have a certified electrician provide power to the Solutionizer system. Provide convenient shutdown switches, comply with local electrical codes and ensure that the system is properly grounded and bonded. All USC control panels must be connected adhering to the same electrical requirements as specified in the main control panel on the power requirement tag (right), or the electrical schematic shipped with the piece of equipment.



Mfg. By: USC, LLC
 Max Voltage: 230V 1PH 60 HZ
 Total FLA: 35
 Largest Motor FLA: 28
 Schematic number: 03-12-0386A
 Enclosure rating: UL type 1
 Short Circuit Current Rating: 5ka RMS Sym, 600V Max

WARNING
 To maintain over current, short-circuit and ground fault protection, the manufacturer's instruction for selection of overload and short circuit protection must be followed to reduce the risk of fire or electrical shock.

WARNING
 If an overload or a fault current interruption occurs, circuits must be checked to determine the cause of the interruption. If a fault condition exists, the current-carrying components should be examined and replaced if damaged, and the integral current sensors must be replaced to reduce the risk of fire or electrical shock.

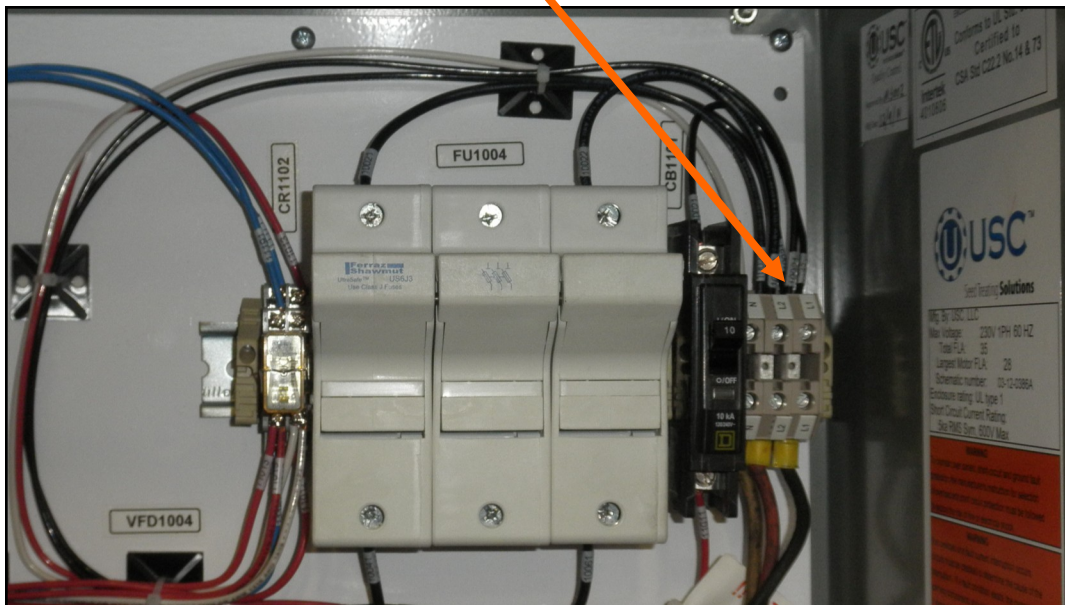
Solutionizer Control Panel
 See schematic number: 03-12-0386A for interconnections.

Replacement Fuse Chart			
Fuse	Line	Size	Type
FU1004	1004/1006	60A	CLASS J FUSE FUSE TDF 600V

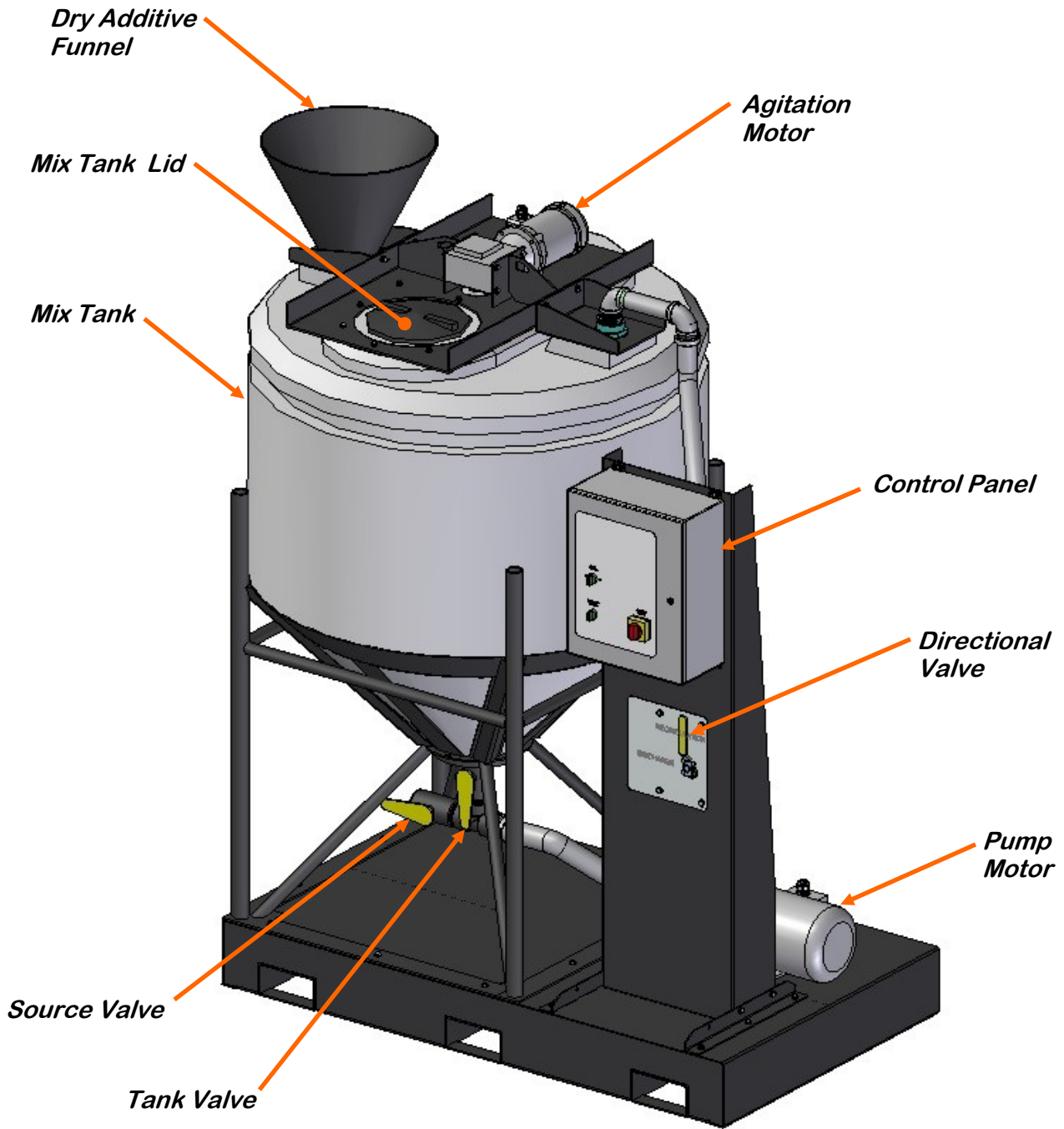
!! WARNING !!
 230Volts/ 1Phase/60 Hertz supply only.
 L1 to Neutral voltage must not exceed 120 Volts!!

Customer is responsible for disconnecting means. Power must be disconnected before opening door.

Incoming power connected to these terminals in the Solutionizer Control Panel

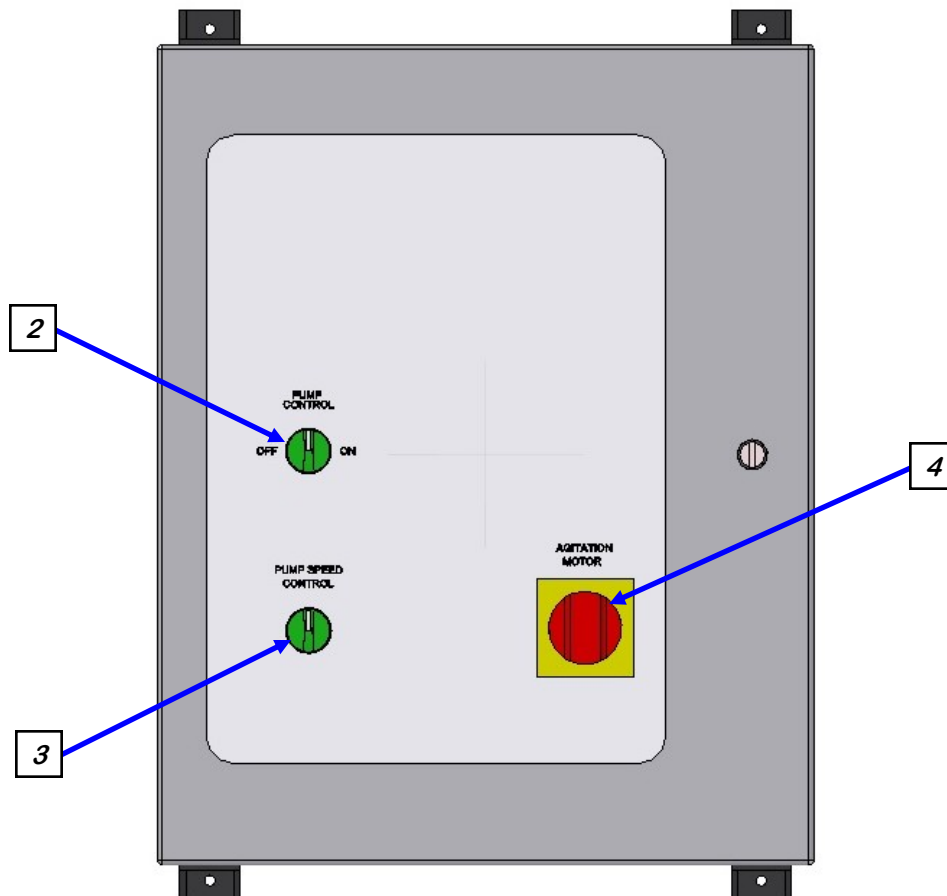


SOLUTIONIZER OVERVIEW



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SOLUTIONIZER OPERATION



1. There are two ways to fill the mix tank. One, unscrew the mix tank lid and fill with a hose. Two, connect a hose from a water tank or fixed water source to the source valve. **CAUTION: when using this method, make sure the pump speed is set to run no faster than the source can provide water.** Place the directional valve under the control box in the RECIRCULATION position. Place the tank valve in the closed (horizontal) position, then place the source valve in the open (horizontal) position.

2. **PUMP CONTROL:** Turn the pump motor to the ON position to begin filling the tank.



When using method number two, start with the pump control set to the far left or slowest position and gradually work up to a faster speed. Sucking air into the pump may cause damage to the unit.

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SOLUTIONIZER OPERATION

3. PUMP SPEED CONTROL: Dial the pump speed potentiometer to the desired speed to control the gallons per minute flowing into the tank. When the tank is filled to the proper water level, turn the pump motor off. Place the source valve in the closed (vertical) position. Place the tank valve in the open (vertical) position. Turn the pump motor back on and the liquid will begin to re-circulate from the bottom to the top of the tank.

4. AGITATION MOTOR: Turn the agitation motor to the ON position.

5. Add the desired amount of dry material through the funnel on the top of the tank. Allow the system to continue to mix until the slurry mixes completely, then turn the valve to the DISCHARGE position. Once the tank is empty, return to step one to mix the next batch.



WARNING

NEVER leave slurry in the tank when the system is inactive. Always discharge completely before shutting down the system. Failure to do so will void the pump warranty.

ELECTRICAL OPERATION**SECTION
D**

HIGH VOLTAGE ~ Always disconnect the power source before working on or near the control panel or lead wires.



HIGH VOLTAGE ~ Use insulated tools when making adjustments while the controls are under power.



AUTHORIZED PERSONNEL only shall work on the control panel. Never allow anyone who has not read and familiarized themselves with the owner's manual to open or work on the control panel.

This section provides a general overview and description of the operator controls for the Solutionizer.



USC recommends the use of surge protection device with a minimum rating of 700VA for all Automated Main Control Panels.

General Panel Descriptions

- The Solutionizer Control Panel is an enclosure that is attached to the vertical bracket on the right side of the 345 gallon tank and contains the electrical components required to operate the equipment. Power for the Solutionizer is supplied here. Power to this panel is hard wired.

TROUBLESHOOTING

Below is a table describing the most frequent problems and solutions with the USC Solutionizer. For further assistance, contact the USC Service department at (785) 431-7900.

Problem	Possible Cause	Solution
Dry material taking too long to mix.	1. Pump motor not running fast enough.	1. Increase pump speed.
Pump Motor will not start	1. Blown fuse.	1. Disconnect power source and replace fuse.

Proper maintenance of the Solutionizer is critical for peak performance, reliability and accuracy of this system. The following is a guideline for the type of maintenance and servicing that should be performed on this unit. Your environment and uses may require additional maintenance and service beyond this list to assure a reliable and safe unit. The operator of this unit has ultimate responsibility to identify areas of concern and rectify them before they become a hazard or safety issue. There is no substitute for a trained, alert operator.



Do not put this unit into operation with any questionably maintained parts. Poor performance or a hazard may occur.

MIX TANK

1. Check motor.
2. Check for any play in the mix tank shaft.
3. Check valves, fittings, and plug on bottom of tank for leaks.
4. Check tubing for abnormal wear.

ELECTRICAL PANEL

1. Check and tighten wire connections.
2. Check to see if starters and/or overloads are tripped.
3. Check and tighten wire connections.
4. Check relay and fuse holder.
5. Check power cords for cuts or frays and ensure ground is present.

SECTION
G**STORAGE**

When storing the Solutionizer for long periods of time, the following procedure must be followed to reduce the chance of rust, corrosion and fatigue of the Solutionizer. You can also use these steps when storing the machine for the winter.



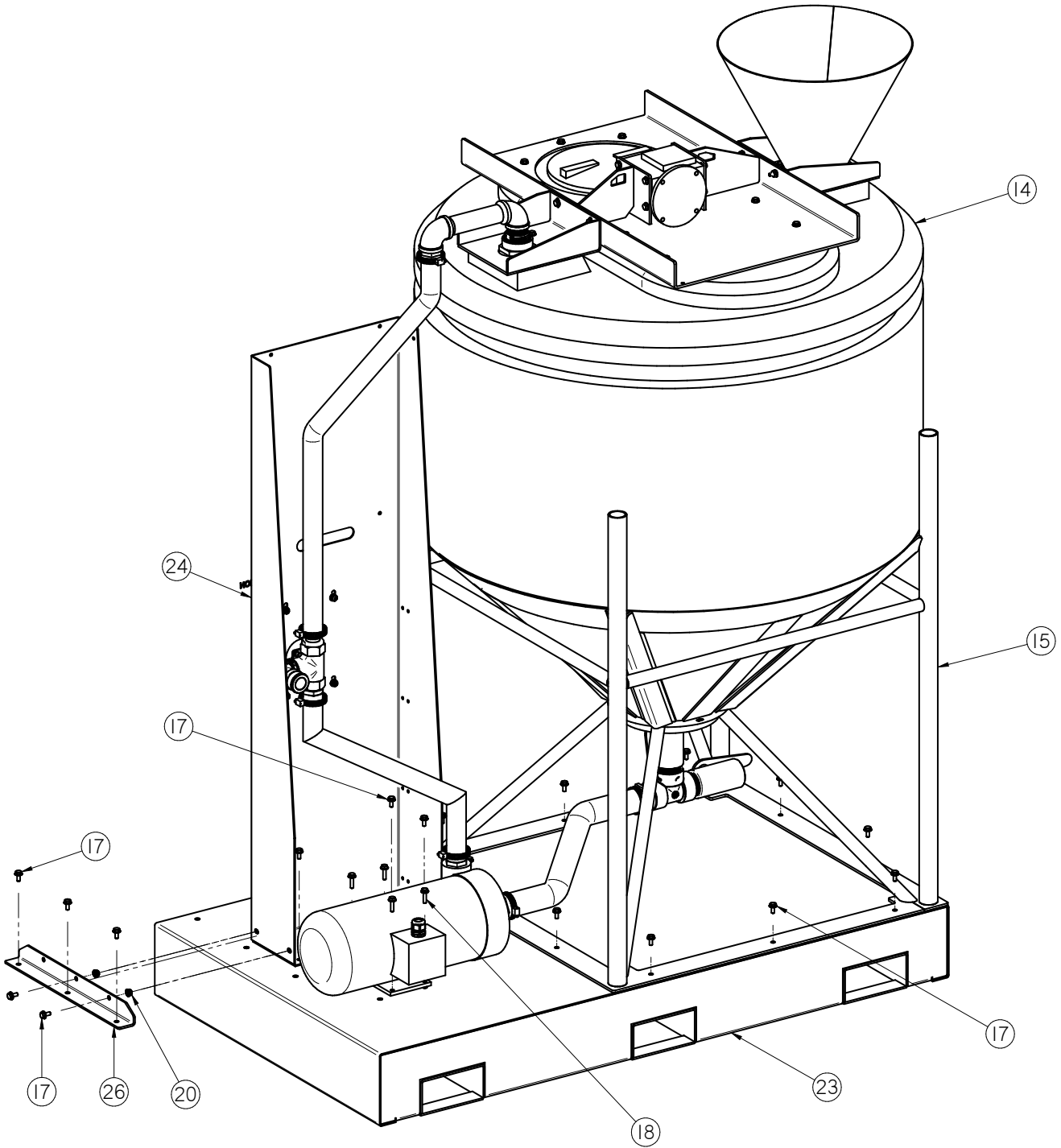
A dust mask and protective rubber gloves shall be used when cleaning the machine.

1. Clear the area of bystanders, especially small children.
2. Thoroughly wash inside of tank, then wash entire machine to remove all dirt, mud, debris or residue.
3. Touch up all paint nicks and scratches to prevent rusting.
4. Store the machine inside a protective building to keep it from being exposed to the weather. Select an area that is dry, level and free of debris. If storing outside, cover with a waterproof tarpaulin.
5. Store machine in an area away from human activity.
6. Do not allow children to play on or around the stored machine.

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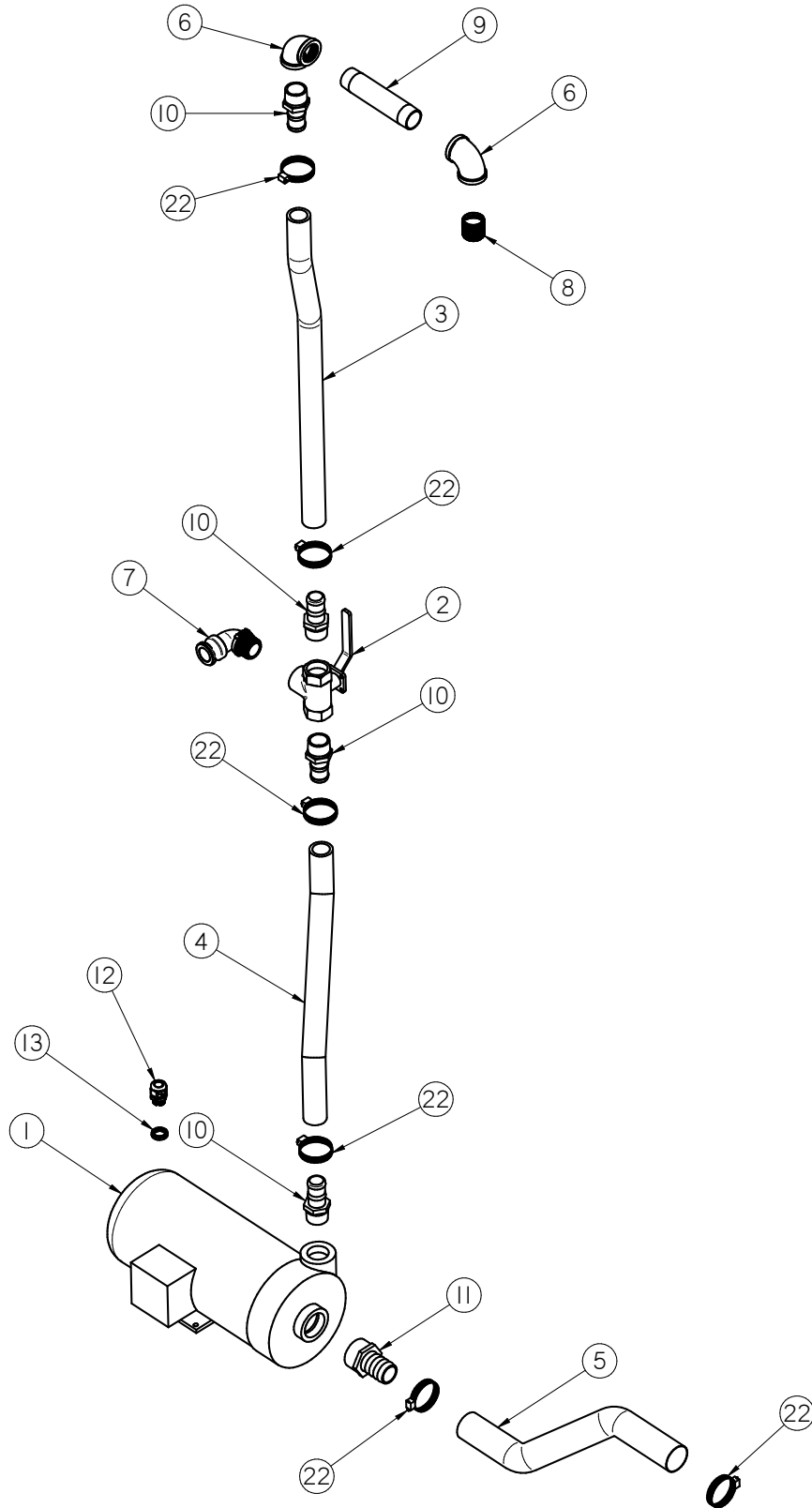
NOTES:

BASE ASSEMBLY (04-03-0222)



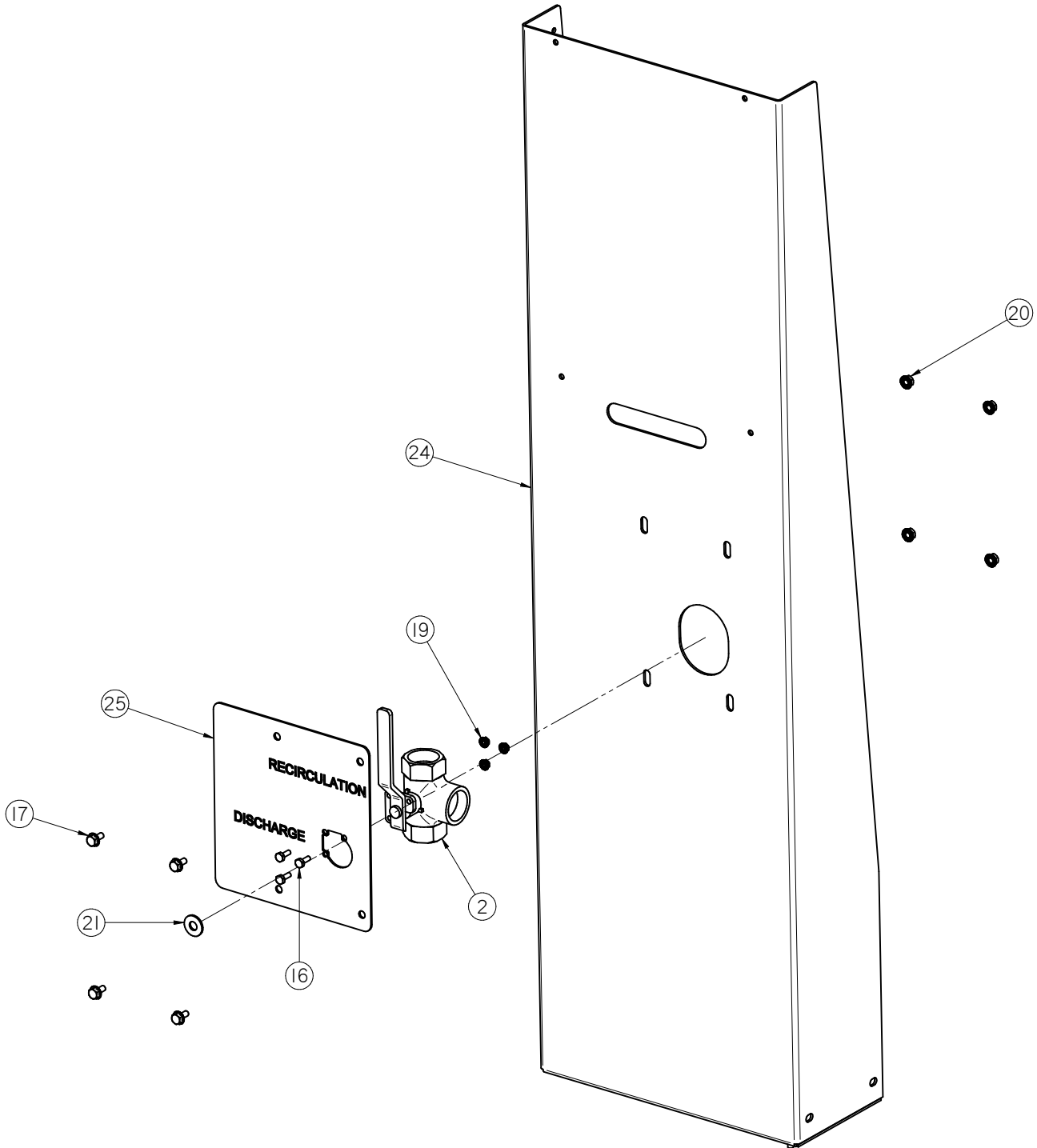
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BASE ASSEMBLY (04-03-0222)



SOLUTIONIZER

BASE ASSEMBLY (04-03-0222)



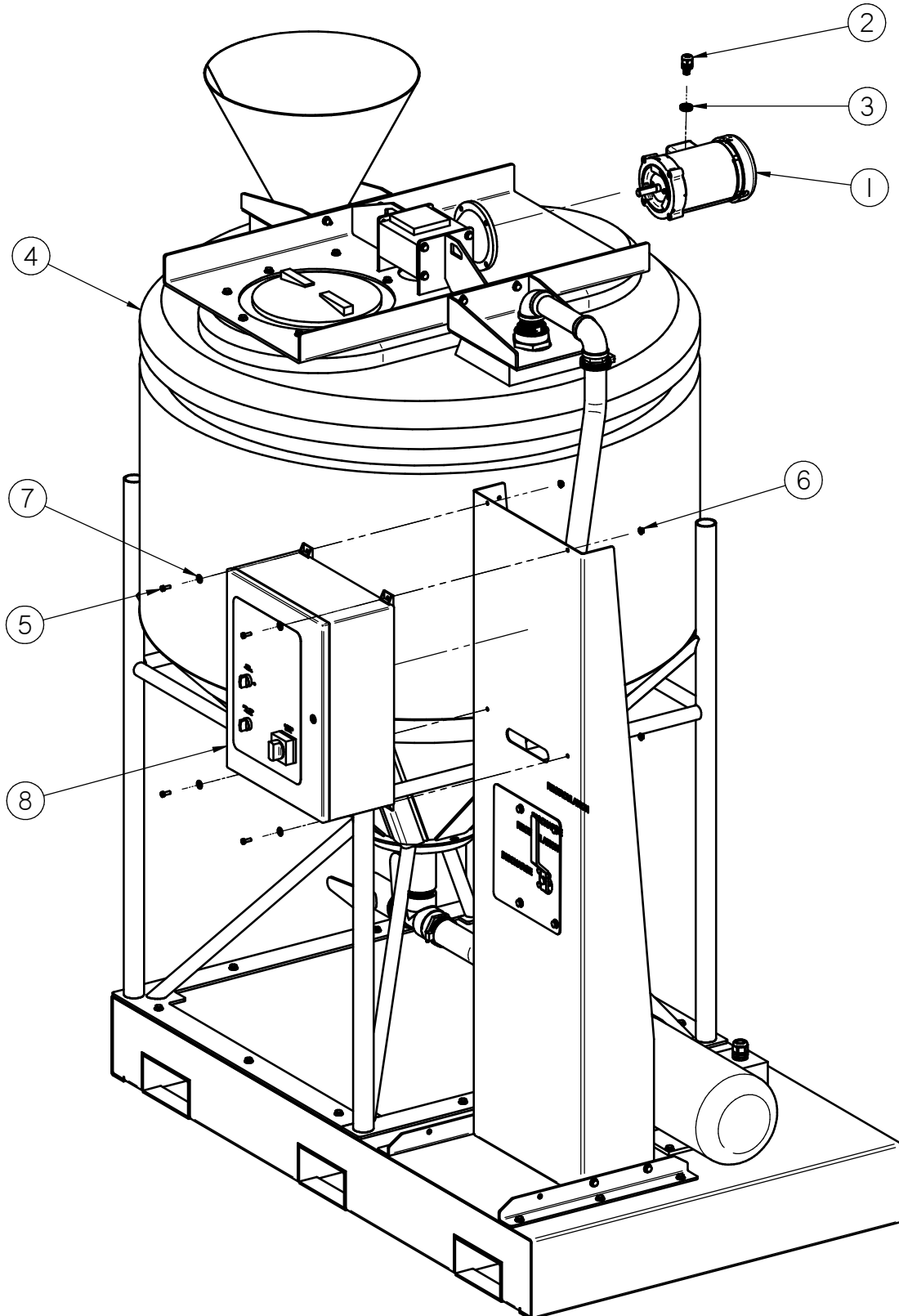
SOLUTIONIZER

BASE ASSEMBLY (04-03-0222)

Item #	Part #	Description	Qty
1	02-01-0041	PUMP CENT 210 GPM 5HP 3PH	1
2	02-02-0089	VVL BALL 1.5 NPT T-PORT 3-WAY BRASS	1
3	02-03-0035	HOSE TBG KANAFLEX PVC-HELIX 1.50IN	1
4	02-03-0035	HOSE TBG KANAFLEX PVC-HELIX 1.50IN	1
5	02-03-0065	HOSE WIRE RIFC PVC 2.00ID	1
6	02-06-0036	FTTG 90 DEG 1.50NPT FM SS	2
7	02-06-0082	FTTG 90 DEG 1.5 NPT ML X 1.5 CAM LOCK ML	1
8	02-07-0091	NIPPLE 1.50 NPT X 1.75 SS	1
9	02-07-0093	NIPPLE 1.5 NPT X 8.00 SS	1
10	02-08-0018	FTTG STGHT 1.50HB X 1.50NPT ML PP	4
11	02-08-0085	2.0 MNPT TO 2.0 HB STRAIGHT POLYPR	1
12	03-08-0300	CONN CG .75NPT .450-.709 3235LTF	1
13	03-08-0309	NUT NYLOC .750 NPT 8466	1
14	04-03-0210	ASSY 345 GAK POLY TANK	1
15	05-03-1548	WDMT TANK STAND 345 POLY	1
16	06-01-0003	BOLT, .250-20 X .750 UNC 18-8 SS	3
17	06-01-0124	BOLT, FLG .375-16 UNC ZP GRADE 5; 3/4" LG	28
18	06-01-0189	BOLT, FLG .375-16 UNC ZP GRADE 5; 1-1/4" LG	4
19	06-03-0013	NUT,LOCK, FLG .250-20 ZP SERRATED	3
20	06-03-0014	NUT LOCK FLG .375-16 ZP GR5	8
21	06-05-0005	WSHR FLAT .500 ZP	1
22	06-07-0036	HOSE CLAMP, 1-3/4" to 2-3/4" X 9/16W	6
23	103BDF	WDMT TANK BASE 345 POLY	1
24	103BE9	SWITCH STAND	1
25	103BEC	PLT SOURCE VALVE	1
26	103EDB	PNL STD SUPP	2

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FINAL ASSEMBLY (04-03-0219)



SOLUTIONIZER

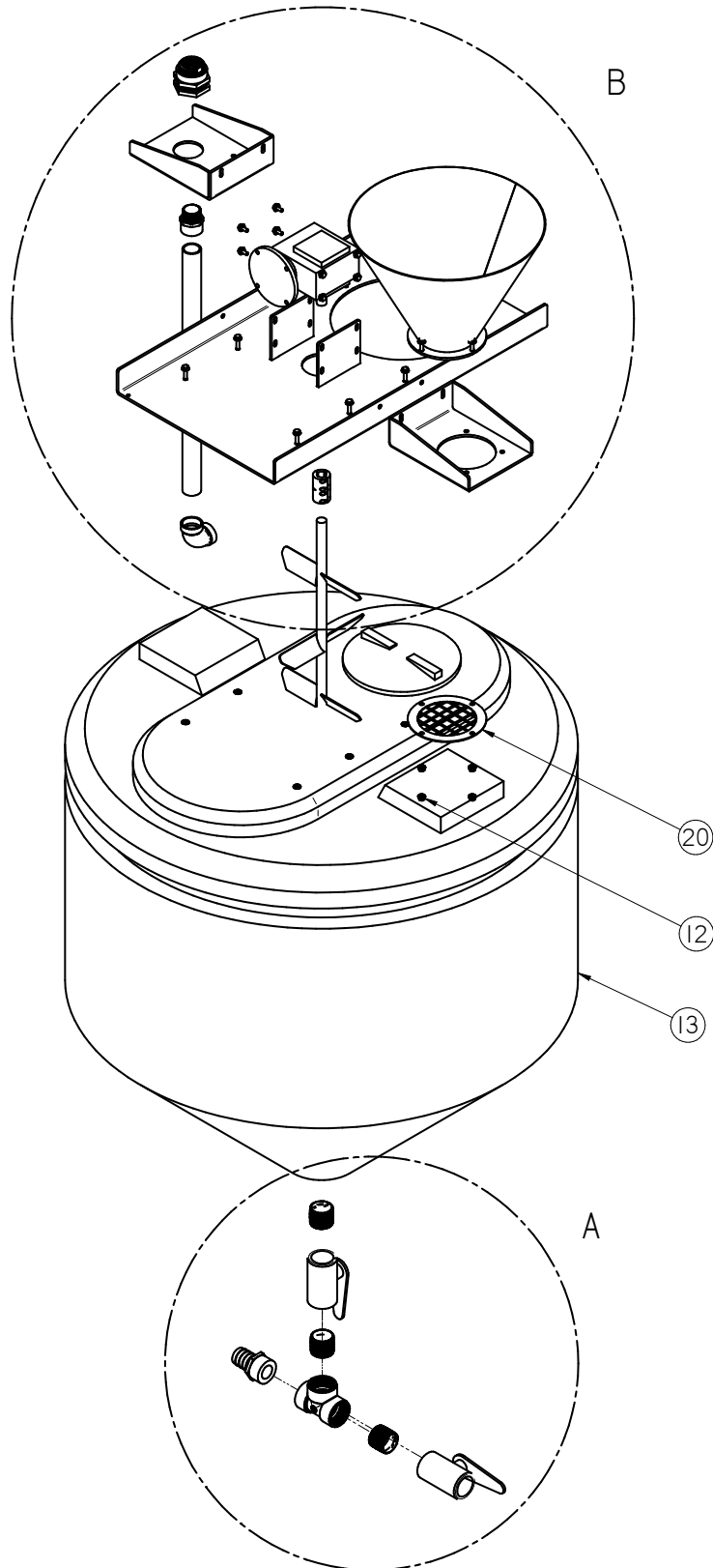
FINAL ASSEMBLY (04-03-0219)

Item #	Part #	Description	Qty
1	01-01-0219	MTR .75HP 1725PRM 1PH 56C	1
2	03-08-0299	CONN CG 0.5NPT .170-.450 3232LTF	1
3	03-08-0308	NUT NYLOC .500 NPT 8464	1
4	04-03-0222	ASSY 345GAL SOLUTIONIZER BASE MIXER	1
5	06-01-0006	BOLT .250-20 X .750 ZP GR5	4
6	06-03-0013	NUT,LOCK, FLG .250-20 ZP SERRATED	4
7	06-05-0001	WASHER, FLAT .250	4
8	SEE TABLE 1	SOLUTIONIZER CONTROL PANEL	1

TABLE 1	
Part #	Description
03-12-0386	CONTROL PANEL 230V 1PH
03-12-0387	CONTROL PANEL 230V 3PH
03-12-0388	CONTROL PANEL 460V 1PH

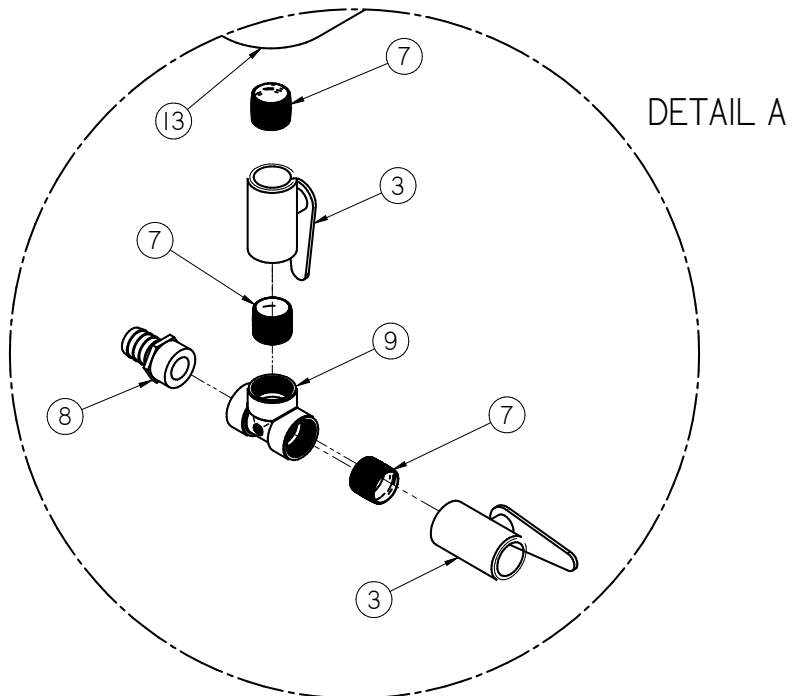
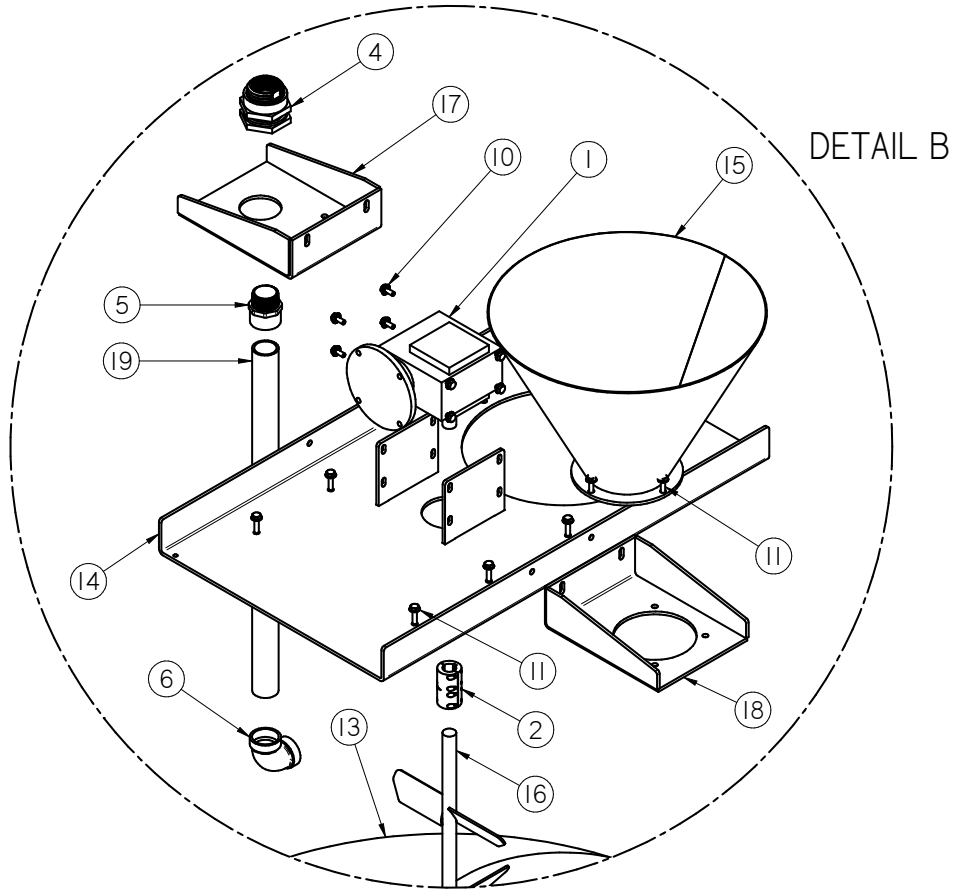
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345 GALLON TANK ASSEMBLY (04-03-0210)



SOLUTIONIZER

345 GALLON TANK ASSEMBLY (04-03-0210)



SOLUTIONIZER

345 GALLON TANK ASSEMBLY (04-03-0210)

Item #	Part #	Description	Qty
1	01-01-0214	GBOX RA GF1521AG	1
2	01-07-0024	CPLG CLPN 1.00 X 1.00, , KEYWAY, 2 PIECE	1
3	02-02-0085	VALVE PVC 2.0 NPT 2-WAY	2
4	02-05-0107	FTTG 1.5NPT DBL THD PVC BULKHEAD	1
5	02-05-0108	CPLG 1.5 NPTM X 1.5 PIPE SCKT PVC	1
6	02-06-0080	FTTG 90 DEG 1.5 PVC SCKT WELD	1
7	02-07-0084	NIPPLE, 2.0 NPT X CLOSE BP	3
8	02-08-0085	2.0 MNPT TO 2.0 HB STRAIGHT POLYPR	1
9	02-09-0037	TEE 2.0NPT BP	1
10	06-01-0124	BOLT, FLG .375-16 UNC ZP GRADE 5; 3/4" LG	8
11	06-01-0189	BOLT, FLG .375-16 UNC ZP GRADE 5; 1-1/4" LG	22
12	06-03-0014	NUT LOCK FLG .375-16 ZP GR5	14
13	07-02-0031	TANK 345GAL POLY CONE BTM	1
14	103BD3	WDMT MTR MNT 345 POLY	1
15	103BD9	WDMT FEED CONE 345 POLY	1
16	103BDC	WDMT STIR ARM 345 POLY	1
17	103C4C	WDMT MIX TANK MOTOR SUPP BRKT	1
18	103C50	WDMT HOPPER MNT	1
19	103CD1	DRIP TUBE	1
20	103D7D	HOPPER GRATE	1

USC LIMITED WARRANTY

SECTION I

USC, LLC, (Manufacturer) warrants its seed treating equipment as follows:

1. **Limited Warranty:** Manufacturer warrants that the Products sold hereunder will be free from defects in material and workmanship for a period of 18 months from date of shipment. If the Products do not conform to this Limited Warranty during the warranty period, Buyer shall notify Manufacturer in writing of the claimed defects and demonstrate to Manufacturer satisfaction that said defects are covered by this Limited Warranty. If the defects are properly reported to Manufacturer within the warranty period, and the defects are of such type and nature as to be covered by this warranty, Manufacturer shall, at its expense, furnish replacement Products or, at Manufacturer's option, replacement parts for the defective products. Shipping and installation of the replacement Products or replacement parts shall be at the Buyer's expense.

2. **Other Limits:** THE FOREGOING IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Manufacturer does not warrant against damages or defects arising from improper installation (where installation is by persons other than Manufacturer), against defects in products or components not manufactured by Manufacturer, or against damages resulting from such non-Manufacturer made products or components. Manufacturer passes on to the Buyer the warranty it received (if any) from the maker of such non-Manufacturer made products or components. This warranty also does not apply to Products upon which repairs and/or modifications have been effected or attempted by persons other than pursuant to written authorization by Manufacturer. Manufacturer does not warrant against casualties or damages resulting from misuse and/or abuse of product(s), acts of nature, effects of weather, including effects of weather due to outside storage, accidents, or damages incurred during transportation by common carrier.

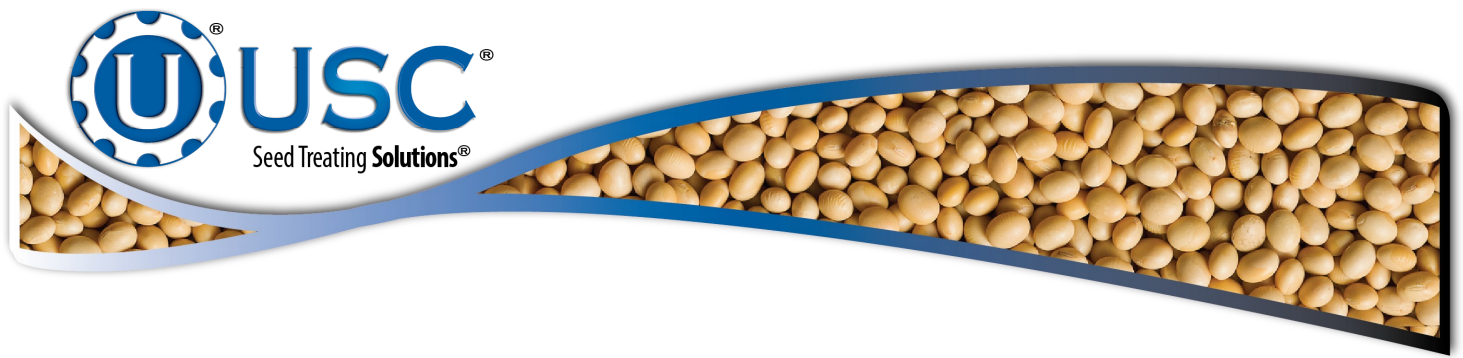
3. **Exclusive Obligation:** THIS WARRANTY IS EXCLUSIVE. The sole and exclusive obligation of Manufacturer shall be to repair or replace the defective Products in the manner and for the period provided above. Manufacturer shall not have any other obligation with respect to the Products or any part thereof, whether based on contract, tort, strict liability or otherwise. Under no circumstances, whether based on this Limited Warranty or otherwise, shall Manufacturer be liable for incidental, special, or consequential damages.

4. **Other Statements:** Manufacturer's employees or representatives' oral or other written statements do not constitute warranties, shall not be relied upon by Buyer, and are not a part of the contract for sale or this limited warranty.

5. **Return Policy:** Approval is required prior to returning goods to USC, LLC. A restocking fee will apply.

6. **Entire Obligation:** This Limited Warranty states the entire obligation of Manufacturer with respect to the Products. If any part of this Limited Warranty is determined to be void or illegal, the remainder shall remain in full force and effect.





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