

# CHEM-BLADE<sup>®</sup> PLUS



## SAFETY INSTRUCTIONS



**⚠** DUE TO RISK OF SEVERE PERSONAL INJURY, DO NOT INSTALL THIS EQUIPMENT UNTIL YOU HAVE COMPLETELY READ AND FULLY UNDERSTAND HOW TO FOLLOW ALL OF THESE WARNINGS AND INSTRUCTIONS.

**⚠** **DO NOT REMOVE PROTECTIVE PACKAGING FROM BLADES UNTIL AFTER INSTALLATION IS COMPLETE.** SHARP POINT AND BLADES POSE A RISK OF PUNCTURE AND LACERATION. USE GLOVES AND EXTREME CAUTION WHEN POSITIONING HANDS AND ARMS TO AVOID COMING IN CONTACT WITH THE CHEM-BLADE. MAKE SURE FOOTING IS STABLE AND BALANCED WHEN INSTALLING.

### Included Parts List

- Assembled Chem-Blade Plus
- Extra Screws for Lid
- Warning Label for Tank
- Operation Instructions

### Tools Needed

- Screwdriver/nutdriver
- Drill(5/16" bit)
- C-Clamps
- Miscellaneous wrenches
- Drill with hole saw (For brand new tanks with no bungs installed)

### For Technical Assistance Please Call:

SureFire Ag

**785-626-3670**

9904 KS-25

Atwood, KS 67730

## Installation Instructions

1. Place Warning Label on clearly viewable portion of container/tank.
2. Remove screws/fasteners from lid assembly of container, remove lid assembly.
3. Set Chem-Blade inside of lid opening where leg hooks catch on the brim of lid platform. (Fig. 1)
4. If Chem-Blade sets into tank with a 16" lid properly skip to step 6. Cutting and trimming may be required of tank depending on tank flange shape or tank lid size. It is recommended to space the four legs equally between the existing lid fastening holes.
5. Certain brands of poly tanks have built in support flanges just below the lid. If your tank has such a flange, set the Chem-Blade into the tank as far as you can for mock up. Use a marker to trace and outline the outside edges of the legs (Fig. 2). Trim in between the marks to allow Chem-Blade to rest onto tank opening properly. Suggested tools for flange trimming: Sawzall, Hacksaw, Drill, and various wood/metal working tools.
6. Set lid collar back into opening and make sure of proper fitment as seen in (Fig. 3). Collar must "pop" inside of Chem-Blade legs and tank brim tightly but not to where collar bulges upward excessively.
7. Begin Plumbing, decide on location of tank bungs/valves for easy access from operator. The tank will require a minimum of two valves, one for the ChemBlade rotating rinse nozzle and one for the empty jug rinse (white ball nozzle).
8. Measure distance from bottom of Chem-Blade pipe nipple to location of tank bung for hose length. (Fig. 4)
9. Remove Chem-Blade, install ¾" elbow fitting and hose barb to nipple, cut length of hose, and install hose to elbow. Install ¾" elbow on the bottom nipple, and ½" elbow and hose barb onto the empty jug rinse ½" pipe nipple.
10. Install tank bung and proper fittings and valves for hose per application.
11. Set Chem-Blade back into tank, connect hoses.
12. Recommended to apply sealant between lid collar and tank but not required. Set the lid collar back into the tank and rotationally clock it so all factory fastener holes can be used.
13. **Use C-Clamps** to squeeze the lid collar and Chem-Blade to the tank at each hole as you install the screws. Use of multiple C-Clamps is recommended.
14. Typically, the installation of a Chem-Blade Plus sets the legs centered between lid screw holes. However, we provide extra screws to make the lid assembly more rigid near all Chem-Blade legs. Please refer to **Fig. 6** where the Star emblems give locations for the extra screws. Please use a drill with a **5/16" drill bit** to create shallow countersinks at these locations. **(CAUTION! Carefully apply pressure and rotate drill very slowly making sure to not drill through the black collar, the screw itself will need to create the through hole. The countersink can be very shallow to be effective in keeping the screw heads low and from dragging and thus interrupting the motion of the lid.**
14. Connect rinse supply. Installation complete! (Fig. 5)

# CHEM-BLADE®

## INSTALLATION INSTRUCTIONS CONTINUED

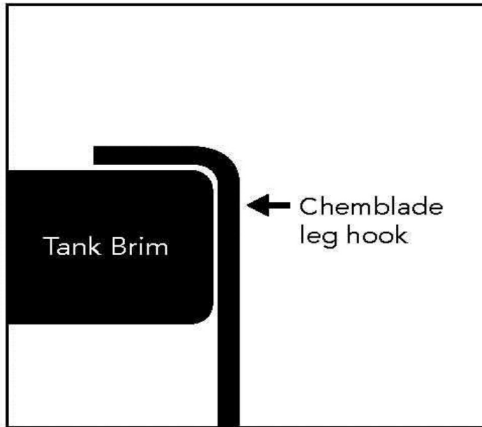


Fig. 1

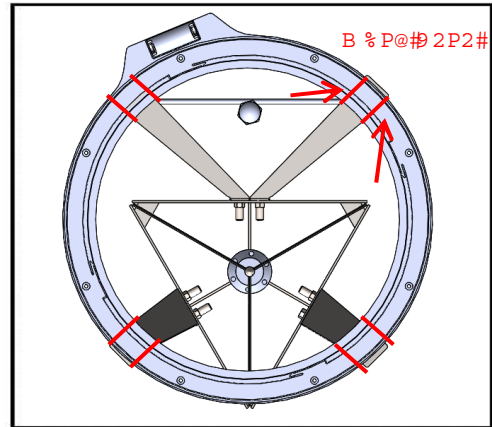


Fig. 2

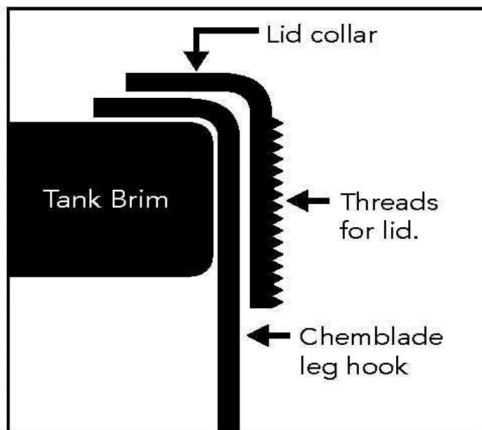


Fig. 3

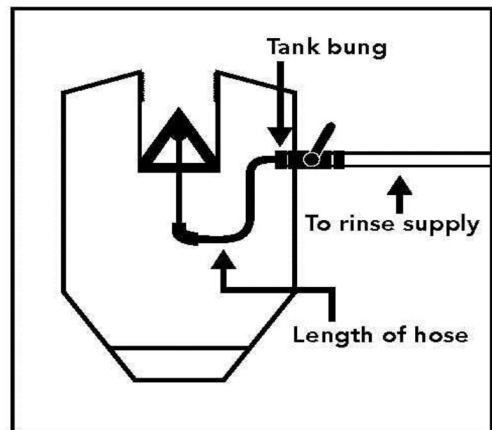


Fig. 4

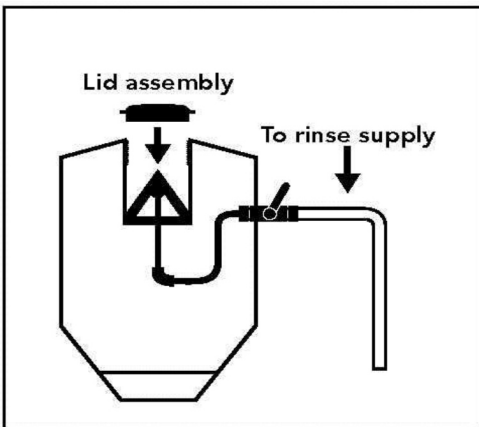


Fig. 5

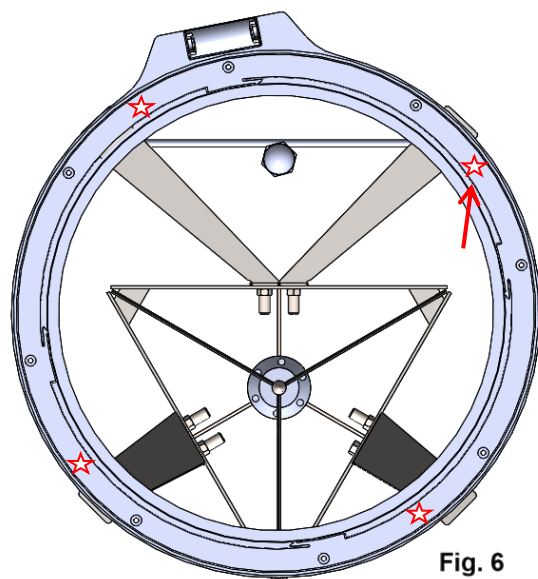





Fig. 6


# CHEM-BLADE<sup>®</sup>


## WARNING


 Sharp point and blades pose a risk of puncture and laceration. Use gloves and extreme caution when positioning hands and arms to avoid coming in contact with the Chem-blade. Make sure footing is stable and balanced before operation.


 To avoid the risk of severe injury, including laceration and puncture wound, never reach into the tank to retrieve any object or contaminate without first safely removing the Chem-blade.


 Do not use with smaller jugs than 2.5 gallon and use extreme caution with smaller containers to avoid hands and arms coming in contact with sharp Chem-blade point and blades.


 High pressure water used with chemicals poses a risk of splash with chemical residue. Always wear safety glasses to reduce the risk that water and chemical could come in contact with your eyes.

 Always use all personal protective equipment specified by the chemical manufacturer or supplier which may include but not be limited to chemical protective gloves, eye protection, protective footwear and clothing, and niosh approved respiratory protection.


 Always position the handle and lid opening of the chemical container in the vertical and upright position when operating the Chem-blade in order to be able to have a firm grip on the container.

 Slowly open rinse supply valve to make sure only enough water pressure is applied and not to over pressure. Too much water pressure could cause you to lose grip on the chemical container, splash chemical or cause the rinse head to fail. Only partial opening of the rinse valve may be necessary.

 Never operate the rinse head with the tank lid open and without the liquid chemical container positioned over the rinse head to avoid spray of water or chemical out of the tank.

 CHEM-BLADE IS DESIGNED FOR USE WITH 2.5 GALLON JUGS AND LARGER. DO NOT USE WITH SMALLER JUGS THAN 2.5 GALLON AND USE EXTREME CAUTION WITH SMALLER CONTAINERS TO AVOID HANDS AND ARMS COMING IN CONTACT WITH SHARP CHEM-BLADE POINT AND BLADES.

 CHEM-BLADE'S SHARP EDGES ARE DESIGNED TO LAST A LONG TIME WITHOUT SHARPENING. IN CASE BLADES NEED TO BE SHARPENED, USE GLOVES AND EXTREME CAUTION WHEN HANDLING AND REMOVING BLADE ASSEMBLY TO AVOID LACERATION AND PUNCTURE WOUND. CONTACT ECK FABRICATION FOR NEW BLADE ASSEMBLY.

 TO AVOID THE RISK OF SEVERE INJURY, INCLUDING LACERATION AND PUNCTURE WOUND, NEVER REACH INTO THE TANK TO RETRIEVE ANY OBJECT OR CONTAMINANT WITHOUT FIRST SAFELY REMOVING THE CHEM-BLADE.

## Steps of Operation



TO AVOID SERIOUS PERSONAL INJURY, BE SURE TO READ, UNDERSTAND AND FOLLOW ALL SAFETY INSTRUCTIONS LISTED ABOVE AND ALL STEPS LISTED BELOW.

1. Firmly grab liquid chemical jug with one hand on the handle and one hand on the lid of the jug; for bags of dry product firmly hold two corners of the bag with two hands.
2. Suspend jug or bag centered vertically straight up from the tip of the Chem-Blade.
3. With speed, press container down onto Chem-Blade until container is half way down blades or until sufficient puncture has occurred so contents can empty. Use care not to push too far to avoid hands and arms coming in contact with the sharp point and edges of the Chem-Blade.
4. Once liquid chemical has emptied from the container, while keeping firm hold of the container, open rinse supply valve slowly and introduce only enough water pressure to apply rinse. **Do not use rinse for dry product application.**
5. After running the rinse system for the time specified by the chemical manufacturer or supplier, turn off rinse supply valve and allow container to drain completely as directed by the chemical manufacturer or supplier.
6. Pull straight up on container and remove it from the Chem-Blade and discard as directed by the chemical manufacturer or supplier.
7. For less than full containers, empty the contents into the inductor tank then hold the jug upside down over the white jug rinse ball nozzle and open the supply valve to clean the jug per the chemical manufacturer or supplier directions.
8. Successful Operation!

## **Troubleshooting**

- **Recommended operating pressure for rinsing system 10–50 PSI (0.7–3.5 bar).**
- If Rinse Head does NOT rotate and rinse the containers/tank properly it is suggested to run a small in-line 80 Mesh strainer on the rinse head supply line. The rinse head utilizes tight tolerances for performance, dirty or contaminated rinse supply will cause clogging. This clogging will not hinder the pressurized spray from the head but will stop it from rotating.
- In case of the rinse head halting rotation, simply remove blade assembly from frame, remove single screw from top of rinse head, wipe clean, and reassemble.
- If tank is being converted from 12 inch lid to 16 inch lid make sure the fitment of Chem-Blade to tank is tight but not too tight where lid collar is buckled and lid will not thread on properly. Lid collar can have some height variance where Chem-Blade attaches but excessive buckling will cause improper lid operation. To cure this, the proper diameter of lid opening needs to be cut. Use new tank lid collar to trace outline cut. Trim tank cautiously going from smaller diameter to larger. Set tank lid into brim before Chem-Blade to check proper fit diameter. The lid by itself will fit loosely. Allow approximately an 1/8” gap the entire circumference for the Chem-Blade legs to fit.

*If you have any issues with installation or operation give us a call at 785-626-3670.*

*Thanks for purchasing our product.*