

# OPERATING MANUAL AND MAINTENANCE INSTRUCTION

## **SECONDARY TANK 25 Gallon Model**

E-mail us at [INFO@CORNVAC.COM](mailto:INFO@CORNVAC.COM) if you need assistance with your Product.

CornVac Systems, Inc. Visit our Website at [WWW.CORNVAC.COM](http://WWW.CORNVAC.COM) to view our other products.

## **UNPACKING YOUR SECONDARY TANK**

When you receive your Secondary Tank, be careful to inspect all parts and components to make sure that nothing was damaged or lost in shipment. If there was shipping damage, be sure to report it to your reseller, or the shipping company that delivered your unit. Freight damage claims must be made to the freight company immediately. If parts are missing, contact your reseller right away.

Carefully remove each piece from the shipping container and verify that you have the items listed below:



Secondary Tank



Cleaning Unit



Transfer Hose  
(Optional)



Rubber Hose Couplers  
(Quantity: 2)

**If you are missing any parts contact your reseller**

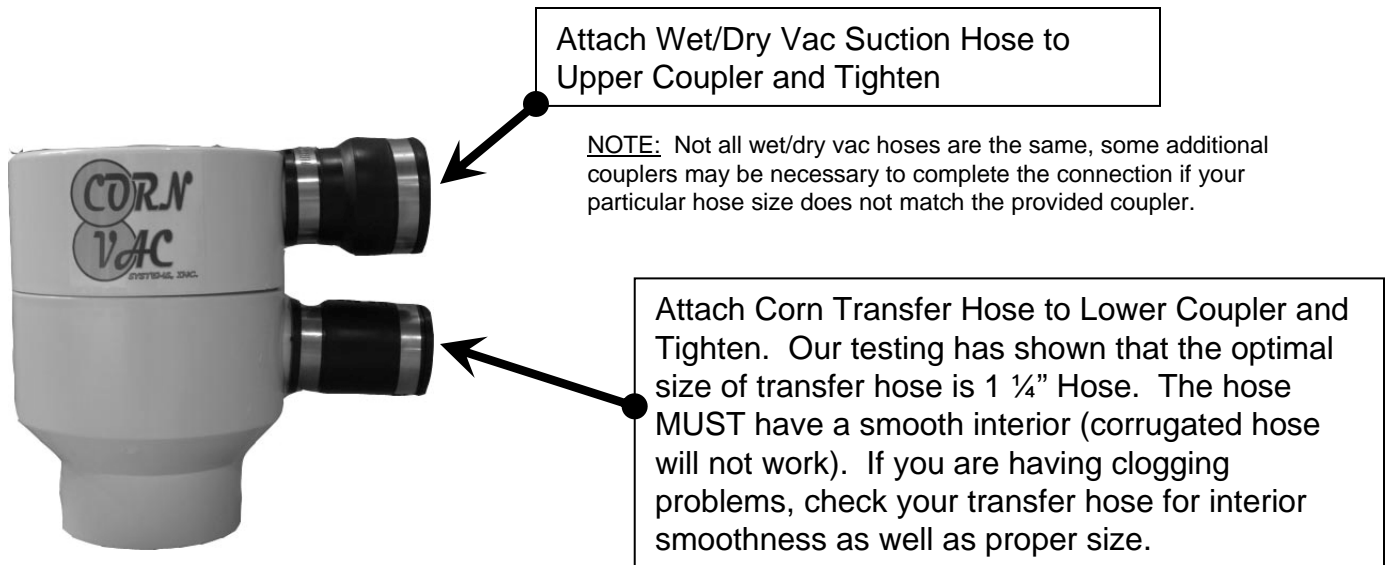


This photo shows an assembled Secondary Tank with the cleaner attached on top.

## ASSEMBLY OF YOUR SECONDARY TANK

The Tank comes pre-assembled, the following steps will complete the assembly:

1. Attach the Cleaning Unit to the top of the Secondary Tank Stub.
2. Slide a rubber coupler onto each end of the cleaning unit as shown below: (Note that the 1-1/2" x 1-1/2" coupler is attached to the bottom stub, and the 1-1/2" x 2" coupler is attached to the top stub.)



3. MOUNTING THE TANK: The Secondary Tank **MUST** be securely mounted prior to operation. Specific mounting instructions are not provided as it is the users responsibility to ensure proper and secure mounting of the tank. All users will have different situations as to location and methods of hanging/mounting the tank, so mounting variations will have to be determined by the user. If your situation does not allow for proper and secure mounting of the tank, do not fill tank until contacting your reseller for suggestions on mounting options. We have found the easiest method of hanging the tank is to secure two (2) Eye-Bolts to the top of the tank with large washers on the inside and outside of the tank (with bolts on both sides on the tank), then simply hang the tank with a chain/rope capable of withstanding the load inside the 25 gallon tank. Be sure to also secure the tank with a strap that holds the tank against the wall (this will keep the tank from swinging from side to side). Any holes that are made in the tank must be sealed with silicone to prevent air loss during the transfer process.

### WARNING

If you have not securely attached the Secondary Tank, it is likely that during the transfer process the unit will fall and cause serious damage to the tank as well as anyone close by. If the tank is not securely attached to a fixed object, all warranties or guarantees are void.

4. Once the Secondary Tank is securely mounted, attach the transfer hose to the bottom rubber coupler of the cleaning unit as shown above.
5. Attach your wet/dry vac suction hose to the top rubber coupler of the cleaning unit as shown above.
6. Your Secondary Tank is now ready for use.

## **OPERATION OF THE SECONDARY TANK**

Follow the steps below when ready to transfer material/corn from your source to your Secondary Tank. Make sure you have read and understand all of the safety procedures and precautions as shown in this entire manual.

1. Make sure the unit is properly secured. Every owner will have a different variation of securing the unit.
2. Hold the end of the transfer hose away from your body and free of obstructions and turn on your wet/dry vac. (read specifications section for more information on size and transfer rates using various wet/dry vacs).
3. Slowly push the end of the transfer hose into the bulk corn that you are transferring, making sure not to completely bury the end of the hose. Once the tank is being filled, you can continue to slowly bury the end of the hose into the bulk corn.
4. After the tank is filled, you can place a bucket under the tank and open the sliding gate to release corn into your bucket or stove.

### **OPERATION TIPS**

1. During the transfer process you may experience a blockage in flow. This is most commonly caused by a high lift of material. If this occurs, remove the end of the hose from the bulk corn and allow the wet/dry vac to pull in the remaining corn blocked in the hose. If after several seconds, the blockage has not cleared, try elevating the hose and straightening out the hose. If the blockage does not clear. Turn off the wet/dry vac and allow the corn to fall out of the end of the transfer hose.
2. To increase the flow rate and lessen the chance of blockages, the transfer hose must be as straight and short in length as possible.
3. For best results, use a solid piece of 1-1/4" solid PVC pipe straight from the mobile unit to the edge of the bulk corn. From this point, a short piece of flexible pipe should be attached with a coupler (not supplied). This will provide a straight and smooth hose to increase the flow rate. (Using the solid PVC along with the transfer hose supplied is not necessary. This method may be used to increase the flow rate and minimize any blockages.)
4. During the transfer process into the tank, the sliding gate **MUST** be closed to prevent air loss.

## **SPECIFICATIONS FOR THE SECONDARY TANK**

1. Recommended Minimum wet/dry vac Size is 3.5 horsepower.
2. For best results, use a 6 or 6.5 horsepower wet/dry vac.
3. This unit has been tested with a central vacuum unit having a 107 inch water lift and a flow rate of 120 cfm. If using a vacuum unit above the stated water lift of 107 inches of water, the unit may loose pressure and reduce the volume of flow.
4. Using a 6.5 horsepower wet/dry vac, this unit has successfully lifted to a height of 8 feet. Although a higher height may be achieved, the increase of blockages may occur the higher the lift.
5. CornVac Systems has conducted numerous testing on various size hoses, lengths and wet/dry vac sizes. The supplied transfer hose has produced the most reliable results when lifting corn to a height of 6 feet to 8 feet. If your "set-up" transfers corn with no height (transferring directly to a basement), a larger hose may be used to increase the flow rate. Be sure to select a hose that has a smooth interior.
6. The recommended maximum length of flexible hose is 15 feet. If your transfer length is longer than 15 feet, it is recommended that a 1-1/4" PVC pipe be installed with the sweeping elbows (electrical conduit bends) in conjunction with the flexible hose to complete the transfer process.
7. Using "tight" 90 degree bends in solid piping will greatly decrease the flow rate and WILL cause blockages in the piping system.

## **MAINTENANCE OF THE SECONDARY TANK**

Very little maintenance is required to keep your Secondary Tank working properly. The following recommendations should be followed to allow the proper function and operation of the unit.

1. DO NOT USE WET CORN while using the tank. Using wet corn will greatly decrease the cleaning ability of the unit as well as causing moisture build up in the cleaning unit.
2. If the unit does get wet, immediately dry off all parts to ensure that the seals and other parts operate properly.
3. Periodically, inspect the cleaner screen and other parts to ensure that the unit is clean. Also inspect the other components of the tank for abnormal conditions.
4. If any air leaks/holes are found, use a silicone product to seal these holes. Any holes will reduce the transfer rate. After sealing holes, wait until the silicone has completely cured before using the tank.

## Troubleshooting Guide

- Q. When I Place the transfer hose into my corn source, the unit works and then clogs.
- A. 1. Review the operation tips to ensure that you do not have excessive bends in the hose.
2. When placing the transfer hose into the corn, Gently lay the end of the hose on top of the corn to start the transfer process, after several seconds, slowly begin to push the hose into the corn source until the hose end is buried. When you rapidly push the hose into the corn, this does not allow sufficient pressure to be built up within the unit and clogging may occur.
3. Inspect all hoses and the cleaner/tank to ensure that no debris has been clogged in any hoses.
4. When stopping the vacuum, ALWAYS remove the transfer hose from the corn source first and allow all corn to be completely emptied from the transfer hose. After all corn has stopped exiting the cleaner, you can then turn off the vacuum unit.
- Q. Can I use a larger diameter hose?
- A. Our testing has shown that the supplied hose 1 ¼” provides the optimum transfer rate and also minimizes the chance of clogging. If your transfer process does not “lift” the corn or your corn transfer is going “downhill”, you may experiment with a larger size hose. By increasing the hose size, you are also decreasing the velocity of the air-stream and potentially increasing the chance of clogging.

**Cornvac Systems, Inc. thanks you for purchasing our products. If you are having problems solving any issues with your product, please email us at [info@cornvac.com](mailto:info@cornvac.com) and we will work with you to solve your issues. Please visit our website for any additional information on this and our other products.**