

USER MANUAL

WSE DROP FLUE BUTTERFLY KIT



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WSE DROP FLUE UPGRADE KIT INSTRUCTIONS

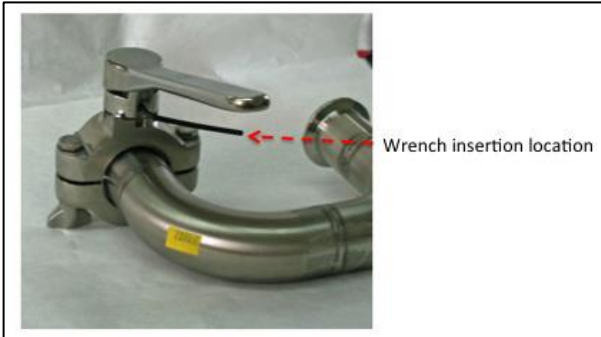
INSTALLATION AND USAGE OF THE WSE UPGRADE BUTTERFLY

The WSE butterfly upgrade provides a valve to close the connection between the flue pan and the syrup pan. This eliminates the need to drain the flue pan when reversing or cleaning the syrup pan. Closing the valve additionally helps maintain the gradient as closed it minimizes the reverse flow of sap to the flue pan.

INSTALLATION

NOTE: Do NOT install this valve onto the pans without first disassembling. If not fully disassembled the rubber section cannot be aligned properly and will be damaged.

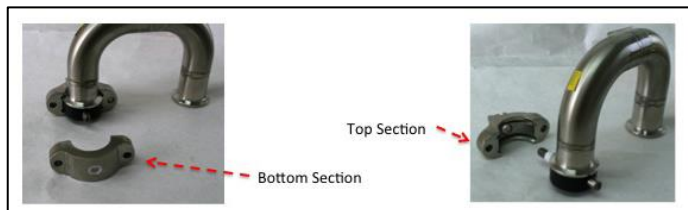
1. Remove the u-tube by loosening and removing the clamps. Hold the u-tube when removing the clamps so the tube and the Teflon gaskets are not dropped.
2. Disassemble the butterfly valve as follows:



- a. Using the supplied 3MM hex wrench loosen and remove the handle.



- b. Loosen / remove the wing nuts and remove the bolts.

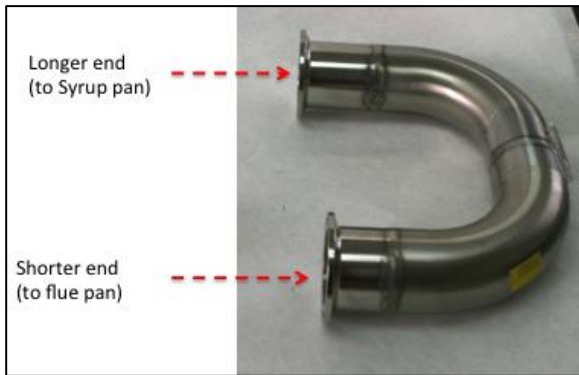


- c. Remove the top and bottom sections of the valve.



- d. Remove the rubber section containing the flapper.

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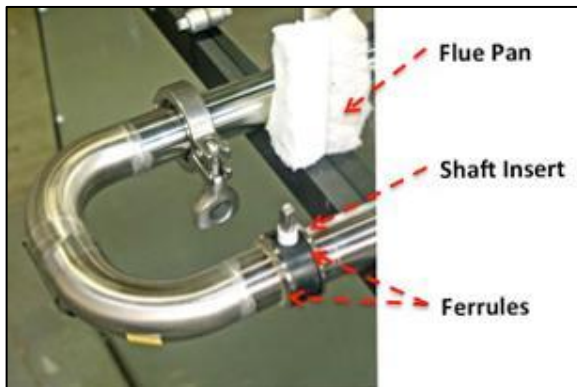


3. Attach the upgrade tube to the syrup pan using one of the clamps and Teflon washers from the u-tube that was removed. The end to be connected to the syrup pan is longer after the elbow. Do not fully tighten the clamp.



Flapper in closed position

4. Align the upgrade tube with the FLUE pan ferrule. Insert the rubber section between the upgrade tube and the flue pan ferrule, ensuring the top of the shaft (top is square) is upright and the shaft insert is in place. Make note of the position of the flapper in the rubber assembly. A way of doing this is to use a marker and mark the top side of the shaft and the same side as the flapper. In order to make the completion of the assembly easier, it is suggested you set and maintain the valve flapper in the closed position (flapper and rubber are parallel).



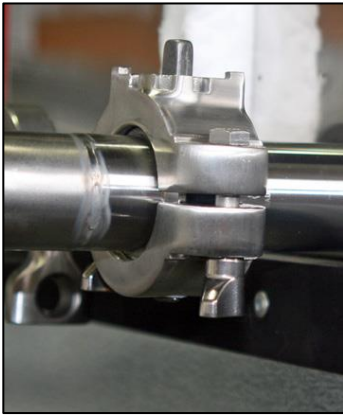
5. Place the top section of the valve assembly over the shaft. Ensure the grooves in the section are lined up with the ferrules of the flue pan and the connector tube.

6. Place the bottom section over the shaft. Ensure the bottom section grooves are lined up with the ferrule of the flue pan and the connector tube. Pay careful attention to ensure the insert is present in the section and the shaft is inserted into it. Hold the section in place.



Bottom Clamp – note the grooves and the shaft insert

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7. Insert the two bolts with the bolt head on top. Thread the wing nuts onto the bolts then tighten



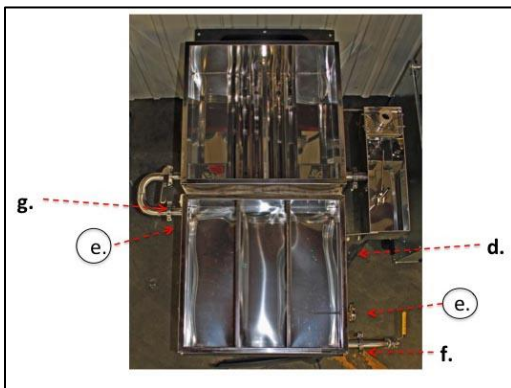
8. Place the handle onto the shaft pointing in the same direction as the flapper valve. If you have maintained the flapper parallel to the rubber assembly then the handle should be mounted at right angles to the valve. Tighten the handle with a 3mm hex wrench. Make sure the handle opens away from the pan.

USAGE

The following is a modification of the syrup pan reversal procedure detailed in the WSE Drop Flue document.

STEP 1: DISASSEMBLE

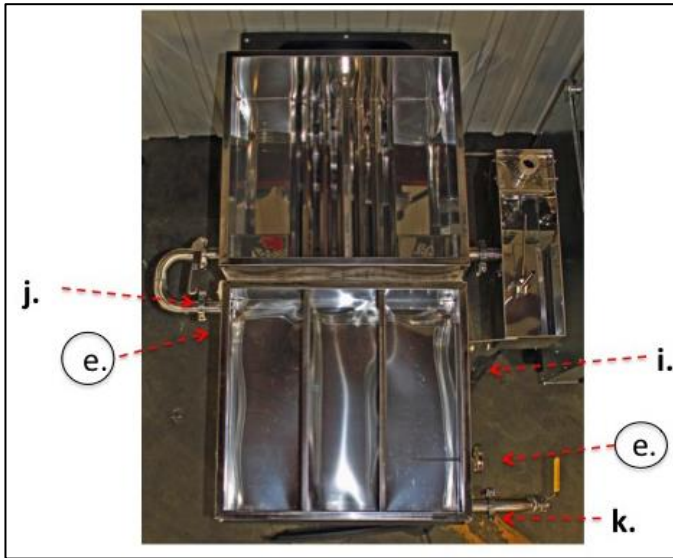
- a. At the end of the day, while still hot, draw off 1 to 1 ½ gallons of “sweet” from the syrup pan and set aside.
- b. Allow the evaporator to cool. Close the upgrade valve on the flue pan, open the draw off valve on the syrup pan and drain the sap from the syrup pan into containers; approximately 5 gallons.
- c. If the pan is cool you can wipe out any loose material using clean cloths.



- d. Remove the thumbscrew securing the float box bracket from the syrup pan mount and thread into the mount on the opposite side of the syrup pan.
- e. If you have installed a single dial thermometer, remove it from its position near the draw off valve and install it in the ¼” threaded fitting on the opposite side of the pan. Plug the empty thermometer fitting with a ¼” plug.
- f. Loosen and remove the clamp from the draw off assembly on the syrup pan then remove the Teflon gasket and draw off assembly. As you take off the clamp, the draw off assembly and Teflon gasket will need to be held so as not to drop them.
- g. Loosen and remove the clamp on the syrup pan side of the upgrade assembly. Remove the Teflon gasket. Do not remove the upgrade assembly on the flue pan side.
- h. Turn the pan 180° so what was the draw off connection ferrule is now the syrup pan upgrade assembly connection ferrule.

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STEP 2: RE-ASSEMBLE



- a. Slide the float box support into the syrup box bracket.
- b. Reconnect the upgrade assembly by securing with a Teflon gasket and clamp.
- c. Reconnect the draw off assembly with a Teflon gasket and clamp.
- d. Ensure the pan gasket between the pans is secure and will not move.
- e. Close the draw off valve and refill the syrup pan with the sap drained off at the start of the procedure.
- f. Tighten the thumbscrew.
- g. Open the upgrade valve to the flue pan and add sap as necessary to bring the evaporator up to the operating level.

NOTE: If using only a single thermometer and you have not reversed the positioning, refer to step e in Disassemble.