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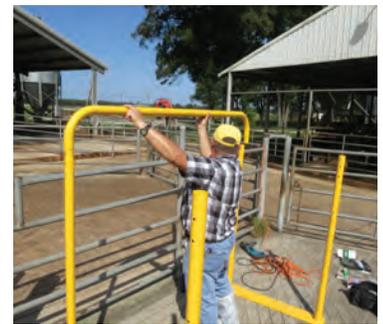
CowVac® Installation Instructions



CowVac Installation Instructions

IMPORTANT! COWVAC MUST BE ANCHORED TO A CONCRETE SLAB BEFORE OPERATION WITH COWS

1. Please call 1-800-955-6576 to determine the optimum location for your CowVac.
2. Place base plates with post adjusting sleeves approximately 6 feet apart.
3. Insert 4 vertical posts into post adjusting sleeve with the 3 holes at the top and 7 holes at the bottom. There are 3 vertical height positions each 2" apart. We would suggest setting these tubes to the middle position to start unless you have all smaller Jerseys (lowest position recommended) or all very big Holstiens (top position). You can change this later but it is much easier to set it now.
4. Next install (2) curved top rails into top of posts. The mounting holes on the top rail for the CowVac unit should be placed so that holes closest to the curve of rail are to the back of unit (the entry end).
5. Secure all tubes with 5/16"x2 3/4" hex bolts and locking nuts.
6. Install the top 2 horizontal side rails (2 per side total of 4) and secure with 2 5/16"x 2 3/4" hex bolts and lock nuts to the vertical posts.
7. Install the bottom horizontal rail (1 per side) to the adjusting sleeves on the base plate. These are slightly shorter than the upper rails and do not have any holes in the horizontal tubes near the ends.
8. Square base plates by measuring diagonally from corner to corner of opposing plates in each direction.
9. Once squared – drill 1/2" hole in concrete thru one of the base plate holes 4 3/4" deep. Place 1/2" x 4-1/4" wedge anchor with washer & nut thru hole in base plate, set with hammer & snug nut with wrench. Note: these anchoring steps can be done as the last step if you prefer as this will give you the option to move it slightly. *Do not let cows near the CowVac until it is anchored to the concrete as it is top heavy and could be tipped over by curious cows. Don't be the first to have this happen.*
10. Verify that plates are square – drill hole thru base plate into concrete in diagonally opposite corner of opposing base plate – install wedge anchor snug with wrench & check for square again. Repeat above steps in opposite corners. Install total of 8 – 1/2"x4 1/4" wedge anchors, 4 in each base plate.



11. Place white side curtains on the **inside** of each of the side panels. If your curtains have the large cut outs, the bigger one goes on the inside of right panel when viewed from the back (the entry end). These side curtains will also have aligning holes on top of curtain that you align with the mounting holes in top rail assembly by putting bolts thru them. Do not add the nut as these bolts will be removed when you mount the main chassis.



12. If your unit does not have the large cutouts for the ducts these curtains are interchangeable. You should center the curtains on the side rails with the cut corner at the top. Wrap the curtain about 3/4 of the way around the top rails. You will later cut out the large duct holes after mounting the ducts to the curtains.

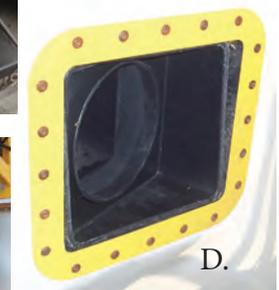


13. Secure the curtains to the top rails and the vertical posts with PVC clips. Use 3 clips each on top, front and rear rails. Get them started by hand and use the rubber mallet to fully set or a big smack with your hand. If not present drill 8 5/16" holes thru the vinyl using the holes on the top rail as a guide.



14. Mount the CowVac unit on the top rails by lifting it with a person on each corner. The heaviest corner is the one with the power switch so put your burliest guy there. Set unit over mounting holes in top rail using a 5/16"x 2 3/4" bolt to align the holes on curtain & top rail with the holes in the half round mounting feet. Secure with 8 - 5/16"x 2 3/4" hex bolts & lock nuts to top rails.

15. If your lower pressure duct is not pre-assembled, slide the mounting flange (b) over the outside of pressure duct (a). Insert the nozzle reducer (c) in the pressure duct (a). The final assembly mounted on the curtain with the metal yellow mounting bezel is shown in (d). These plastic parts expand when heated so leave the one going on the outside in the sun and keep the inside part cool. A big soft hammer is a good "persuader" to get it to slide in.



16. Assemble the 10" pressure hose, Tee and side pressure nozzle assembly. The shorter flex duct goes on the top of the Tee and the longer one on the bottom but this can be reversed. Orient the Tee so the air flowing from the top will have the smooth curve for its flow path. Place offset clamps over both ends of all flex duct tubes making sure the top band always has a rubber wall on the outside. Push the flex duct tubes on the plastic parts as far as possible. Tighten offset clamps at all connections snugly but do not over tighten where the clamps distort. Orient the lower pressure duct face on the assembly to be parallel with the Tee. Note, one side of the Tee will be open and we suggest that faces the exit side.



17. Install the pressure duct assembly over black plastic fitting on bottom of the left side of the CowVac unit (below the power switch). The pressure nozzle bezel should be parallel with the rails. When installed the top of the inside of the bottom duct should be approximately 24" from the ground with the vertical rails in the middle position.



18. Install the 6" flex duct on the vacuum nozzle and tighten the clamp. Install this assembly onto vacuum manifold on the right side of unit with the pressure nozzle bezel parallel with the rails and tighten top clamp. The insides of this vacuum duct should also be approximately 24" from the ground.

19. Install clear front and white top curtains to the center vacuum duct with clamp strips and 1/4 bolts & lockwashers provided (Photo shows prior black curtain).

20. Install the 3 18" long 6" dia flex ducts to the top center vacuum duct. Tighten the clamps. Then push these tubes onto the upper front manifold as far as possible. Keep the vacuum duct level from side to side. Tighten clamps securely at all connections.



21. Once all ducts are secured and in position with clamps install 2 SS screws & fender washers thru the flex duct into molded manifold parts to provide additional retention. Without these screws the ducts could slide off.

22. This next step takes 2 people, one on the outside of the rail to hold the duct and one on the inside to drive the screws. Position the pressure flex duct to be vertical and the pressure nozzle top to be level and drill 2 alignment holes from the outside of the duct mounting holes thru the vinyl curtain. Install the metal bezel on the opposite (cow side) of the curtain thru these alignment holes with 2 screws to the ducts. Then add the rest of the screws through the metal bezel to the plastic nozzle. We suggest starting with opposite corners and add them diagonally. One person holds the duct on the outside and the other drives the stainless sheet metals screws. When all screws are install cut out the vinyl curtain from the inside to the match the opening in the duct with a sharp blade or box knife.



23. Repeat this procedure on the vacuum duct and bezel. Make sure the flex duct tube is vertical and the nozzle top edge is level. Instead of screws that tap into the plastic as on the pressure duct, this vacuum duct uses machine screws and locking nuts so you must run a drill thru the holds in the duct and thru the vinyl. When all screws are secured cut out the vinyl using a sharp blade with the inside of the nozzle as a guide.



24. Secure the center upper white curtain with the bungee cords in the vinyl tubes. Drill a hole in the plastic center duct, insert bungee and secure it with a knot inside. Tie the other end of the bungee to the mounting tabs on the entry side.



25. Intall the collection bag on the ring below the collection chamber with the hose clamp. Add the plastic closure clamp to the bottom of the collection bag.



26. Install the “Nerf Bars” that protect the flex ducts if your cows will have access to the side of the CowVac. These bolt on with 2 3/4” bolts and nuts. Add bungee cords to each of the vacum ducts to pull them inward. Secure bungee to the horizontal rail with 2 bolts and large fender washers.

27. If your unit does not have a power plug installed install with the black (hot) wire to the brass screw terminal, the white (neutral) wire to the silter screw terminal and the green (ground) wire to the ground terminal.



28. Plug the power cord into a 20amp 120 volt dedicated circuit with a GFI breaker. Turn the unit on. The CowVac should pull approximatly 15 amps when running, maximum 16 amps. This is pre-set at the factory but can be adjusted in the field by adjusting the variable pully on the motor. Please call if you need to do this.

29. The motor has a thermal overload switch. If the CowvVac runs and then stops, check the breaker first and then reset the thermal switch on the motor. First unplug the unit, open the filter door on the side opposite the power switch. Remove both filters and reach in and push the round button on the near the front of the motor indicated by the triangle.



30. Check the filter screens frequently . The finer yellow screen is closest to the motor. These screens need to be cleaned or the performace will dramatically fall. They can be shaken to remove dry debris or hosed off if the debris material is wet.

31. Remove and empty the collection bag before it gets this full. Just release the clip at the bottom and the dead flies will fall into a sack or bucket placed below. There will be some live ones and they will be very hungry so expect a few to want to dine on you hand. Simply brush them off.



32. The CowVac is factory configured to run on 120 volts, but can be reconfigured to run on 240 volts single phase. To do this, you must remove the back panel, open the small box on the motor and change the wires as shown on the schematic on the motor. The power plug must also be changed.



Warning: The power switch just turns the motor on and off. The unit has live voltage inside the unit even when the motor is OFF. Ensure you disconnect the unit from the AC supply before removing the cover.