

# **VORTEX**

## **Operational Instruction**



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1. Before attempting to use the Vortex, you must check the manufacturers' directions and recommendations for the material you plan to spray.

**Warning:** Do not use solvent base materials.  
It will damage the pump hose.

2. Make sure you are in a completely safe area clear of any chemicals that can cause explosions or fire. Failure to inspect can cause serious injury or death.
3. You must use the Vortex in a well ventilated area, using the Vortex in a non-ventilated area can result in death.

4. Before starting engine you must:

- A. Check fuel level. If refueling is required do not over fill, make sure cap is closed properly and securely.
- B. Check engine oil level. If adding is required refer to Honda engine manual, and check for oil grade recommendations.



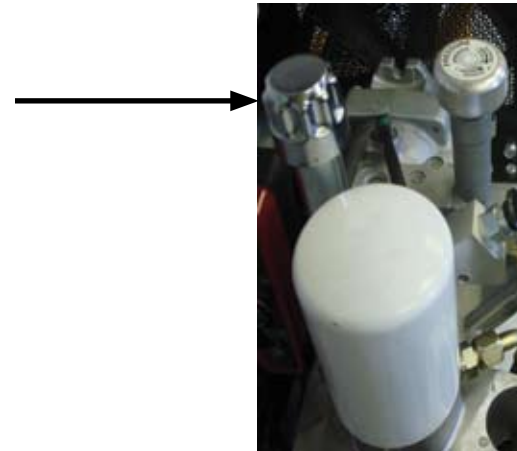
**C. Check air compressor oil level. Oil must be at the top of the fill hole, if adding is required use only air compressor synthetic oil.**

**Note: The upper plug is to add oil.  
The bottom plug is to drain oil.**

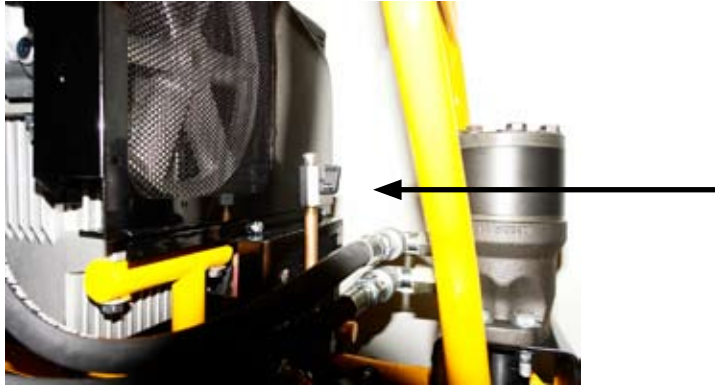


**D. Check hydraulic power system oil level. Oil must be at the top line on the dipstick, if adding is required you must use AW32 or DTE24 hydraulic oil.**

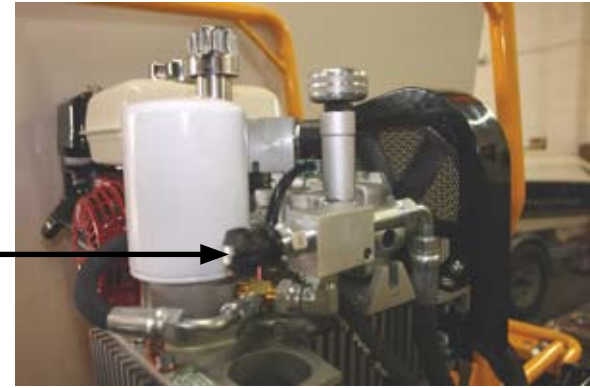
**Note: Any other oil type will damage the unit and void manufacturer is warranty.**



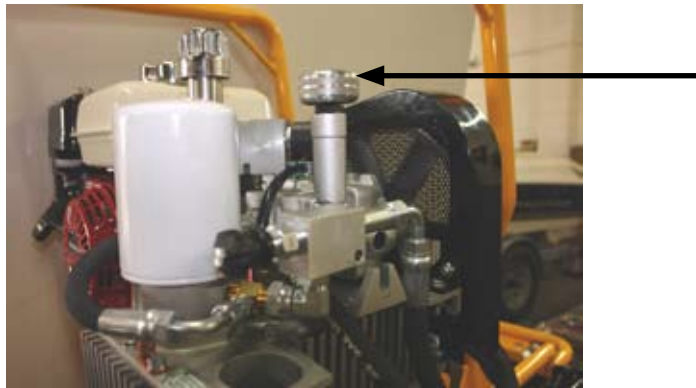
**5. Open air valve at the front of the compressor cover, and make sure the valve handle is parallel to the valve body.**



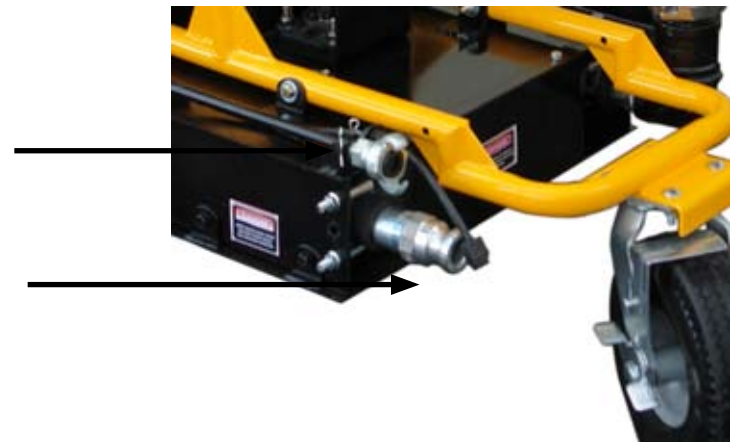
**7. Turn the hydraulic speed valve all the way clockwise.**



**6. Turn the hydraulic pressure control knob all the way counterclockwise.**



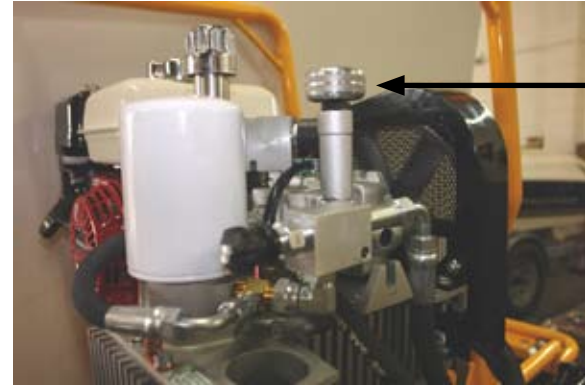
**8. Connect the air hose, material hose, and control cable.**



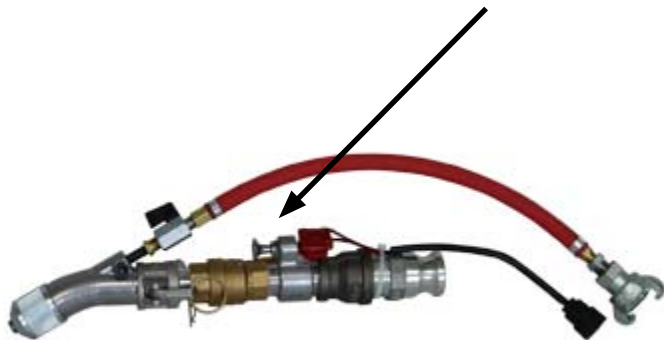
**9. Turn the switch On, and Start the Honda engine referring to engine instruction book supplied with the Vortex.**



**11. Turn the hydraulic pressure knob all the way clockwise.**



**10. Turn the pole gun switch On.**



**12. Turn the hydraulic speed valve counterclockwise.**



# Synchronize Pump Pressure and Speed

**A**= Pump pressure-adjustment. Turn clockwise to increase pressure.

**B**= Pump speed-adjustment. Turn counterclockwise to increase pump speed.

## Note:

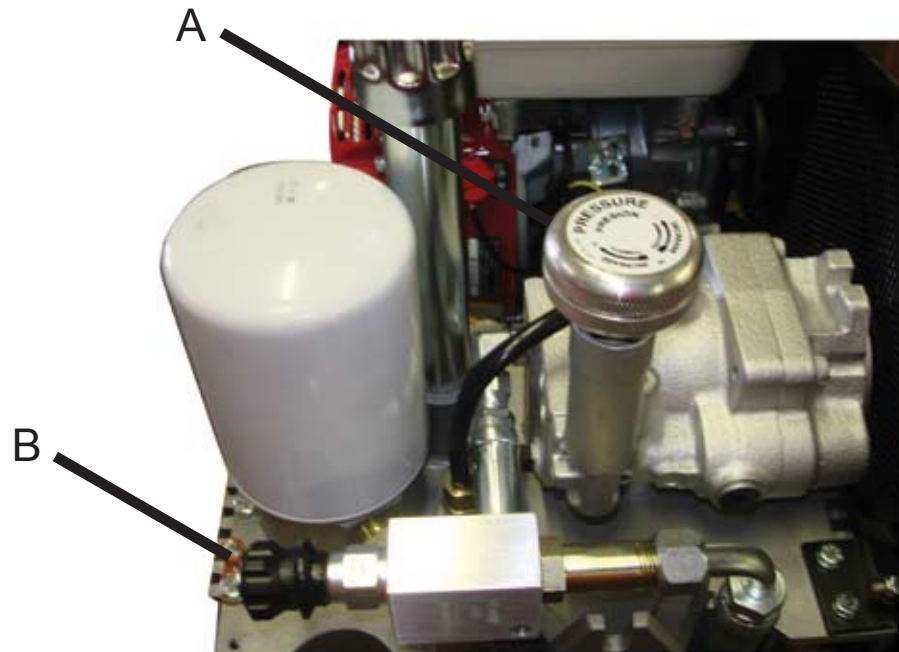
At first make sure engine rpm is at maximum speed.

When adjusting the pressure-control (**A**) to maximum pressure, and speed-control (**B**) to minimum speed the engine will over load by getting lower rpm and it may turn off.

To prevent the engine from turning off, it's required to synchronize the pressure with the speed.

Simply back up the pressure by turning control (**A**) counterclockwise until the engine sounds normal, and the rpm get to it's higher speed.

When more speed is needed turn speed control (**B**) counterclockwise, and then readjust pressure-control (**A**) turn clockwise to increase pump pressure.



13. After preparing the material to manufacturer's recommendations fill the hopper.

**Note:** For easy priming we recommend to use plastic cement and water only do not add sand.

**Note:** We highly recommend that when using polymer-modified cement products, not to fill hopper more than 5 gallons at a time to keep material fresh, and to eliminate material drying in the system.

14. While priming the material we recommend that you do it at a slow speed to eliminate material packing up in the material hose.

15. Check hydraulic motor speed, as we recommended that you start at a low speed.



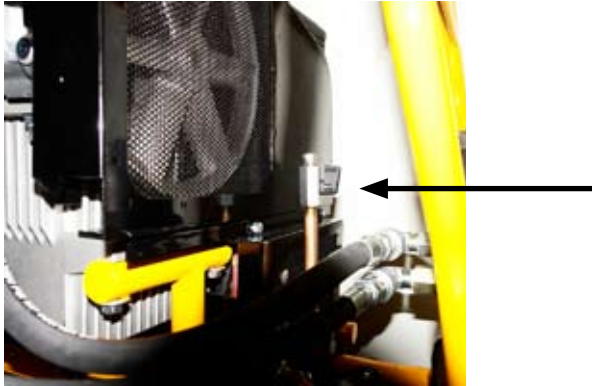
16. Circle material into the hopper, and adjust flow rate by turning the hydraulic speed control counterclockwise. When satisfied turn pump OFF.

17. Wash the hose quick fitting with water, and connect the gun with proper tip to apply materials.  
( see quick reference guide )

**Note:** This is only a start up setting. You may change this setting at any time.

Tip	Use	Air Flow	Fluid Speed Delivery Setting
1/8"	Fog Finishes Fine Orangepeel	High	Low
3/16"	Orangepeel and Light Splatter Coat	High Low To High	Low To Medium
1/4"	Heavy Splatter Coat Knockdown	Low Low	Low To Medium
5/16"	Heavy Splatter Coat Heavy Knockdown	Low Low	Low To Medium
Pole Gun 3/8"	Heavy Splatter Coat Heavy Knockdown For Applying Stucco Finishes	High	Medium To High

**18. Close the air valve at front of the compressor cover, and make sure the valve handle is perpendicular to the valve body.**



**19. Open the air valve P/N 10-110, You must feel air flowing out from the gun needle at the front of the gun.  
Pull the air stem about 1.5” before applying material to allow flow.**



**20. Spray some material into the hopper, and make final adjustments before applying to surfaces.**

### **Adjusting Gun**

**Start spraying with the gun air valve at it's maximum setting.**

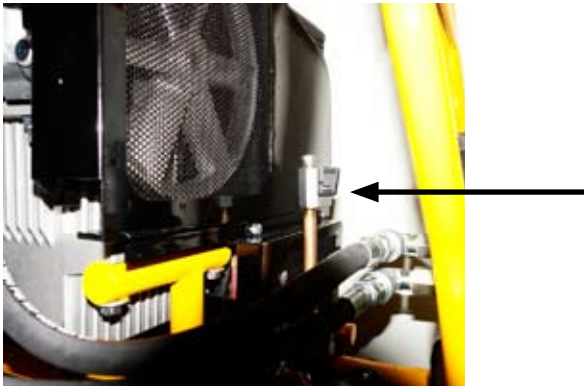
**Decrease air flow through the gun if necessary, until a good spray pattern is obtained.**

**Opening the air valve to maximum increases air flow through the gun and decreases material output.**

**Closing air valve decreases the air flow through the gun and increases material output.**



21. Turn switch OFF, keep spraying for few seconds to release pressure from hose, to eliminate gun tip from packing up with materials at start up.
  
22. At the pole gun's close ball valve, keep steady air flow to make sure no material will back flow into air stem.
  
23. Close air valve at the gun.
  
24. Open the valve next to the cooling radiator.

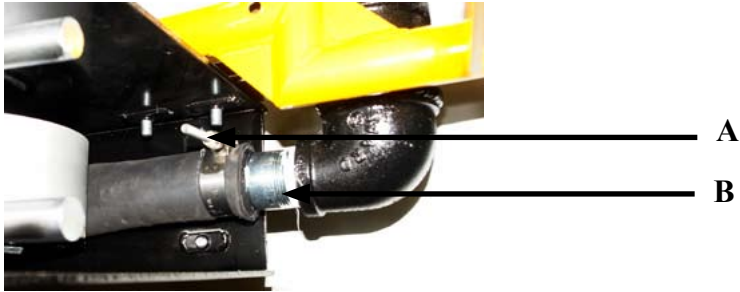


25. Remove pole gun from hose.
  
26. Go to step 10, turn machine ON, and drain all excess of material from hopper. when empty turn pump OFF.
  
27. Add water to hopper, turn system to ON and wash hopper and hose .
  
28. For final wash insert cleaning ball into the hopper, and look for the cleaning ball flowing throughout the hose and cleaning the hose, pole gun must be removed.



# How to change the pump hose

1. Open hose clamp A, and turn hose fitting B to open and close couple times. This will prevent hose from sticking.

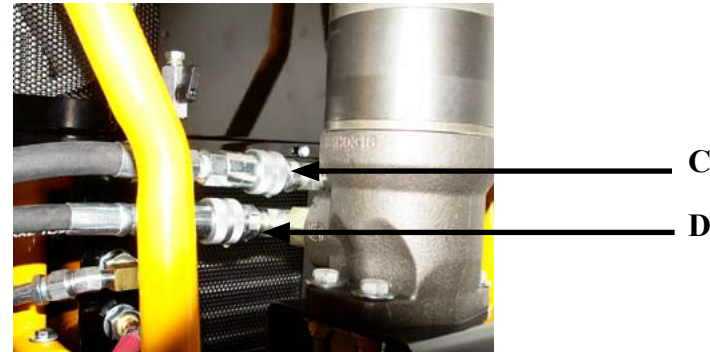


2. Remove the hose clamp, and then turn and remove the hose fitting.



3. turn system on at a very low speed, hold hose very tight and pull the hose until it's all out, and then stop and turn of system and engine.

4. switch between oil connector C & D so roller will turn clockwise.



5. Spread soap or silicon spray on back of the hose, start system. Insert and push the hose through the side of the material outlet, the roller will help to get the hose into place. Make sure the hose will go into fitting, and clamp as shown in step 1.

6. tighten hose fitting and clamp on step 1 then locate new hose clamp as shown in step 2 insert fitting to hose and tight all to frame.

7. switch between oil connector so roller will turn counterclockwise.





**BEJ** 