



9.6 Vacuum Pump Motor (Only) Replacement

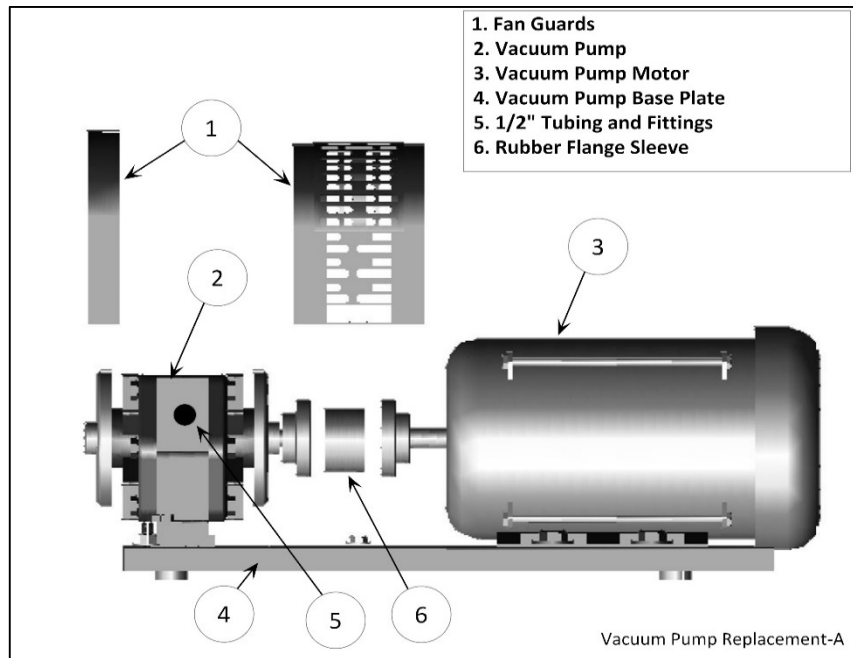


Figure 9-14: Vacuum Pump Components

9.6.1 Removing the Vacuum Pump Motor

- **See Figures 9-14 & 9-15.**
 1. Turn OFF power to the VST Control Panel at the Power Switch located on the front of the VST Control Panel. (The power, ground, and neutral will be completely disconnected from the GREEN MACHINE).
 2. Follow lockout & tagout procedures prior to starting work.
 3. Unlock the hasps and remove the cover from the GREEN MACHINE.
NOTE: The Vacuum Pump and tubing will not be affected by removing the motor.
 4. Remove the fan guard over the drive coupling flanges.
 5. Disconnect the motor wires inside the motor junction box. **See Figure 9-15.**
 6. Remove the flexible conduit and 90° liquid tight fitting from the Vacuum Pump motor junction box and keep for re-use.
 7. Remove the two bolts holding the Internal Junction Box stand to the GREEN MACHINE base. Keep the bolts for re-use.
 8. Remove the 4 Vacuum Pump motor mounting bolts from the motor base and keep them for re-use.
 - Note the location of the shims for replacement.
 9. Slide the Vacuum Pump motor away from the Vacuum Pump and remove.
 10. The rubber flange sleeve between the Vacuum Pump and the motor may, at the discretion of the contractor, be replaced if worn.



Removing the Vacuum Pump Motor, continued

11. Remove the Vacuum Pump motor drive coupling flange from the motor shaft and keep for re-use. The coupling is attached to the shaft with a setscrew and has a shaft key.

9.6.2 Replacing the Vacuum Pump Motor

- **See Figures 9-14 & 9-15.**

1. Re-install the drive coupling flange on the motor shaft but do not tighten the set screw and do not install the shaft key.
2. Place the new Vacuum Pump motor on the base, install the rubber flange sleeve between the two coupling flanges, and align the mounting holes.
Replace the shims.
3. Re-install the 2-bolts holding the Internal Junction Box stand to the GREEN MACHINE base.
4. Re-install and tighten the 4 Vacuum Pump motor mounting bolts.
5. Slide the drive coupling flange over the rubber insert so both halves of the coupling are snug (not tight) against the rubber flange sleeve.
6. Install the shaft key, and tighten the set screw.
7. Install the 90° liquid tight fitting and flexible conduit on the motor junction box.
8. Re-connect the Vacuum Pump motor wires inside the motor junction box.
See Figure 9-15.
9. Re-install the fan guard.
10. Remove the lock(s) and tags from the lockout & tagout.
11. Turn ON power to the VST Control Panel. At the VST Control Panel, put the PLC in the Maintenance Screen. At the Main Screen, push the Maintenance Screen button to access the Password Screen then enter the password to access the Maintenance Screen: Password is 878.
12. Perform a Bump Test to make sure the Vacuum Pump motor is rotating in the correct direction.
(The Bump Test is located in Chapter 6: Start-Up & Testing.)
13. After the Bump Test is completed, push the ESC button so the Main Screen is showing at the PLC.
14. At the GREEN MACHINE, check to make sure the Vacuum Pump and Vacuum Pump motor are running without excessive vibration or noise. Excessive vibration or noise would indicate the motor, Vacuum Pump, or rubber flange sleeve may not be installed correctly.
15. Put the cover on the GREEN MACHINE and lock the hasps.

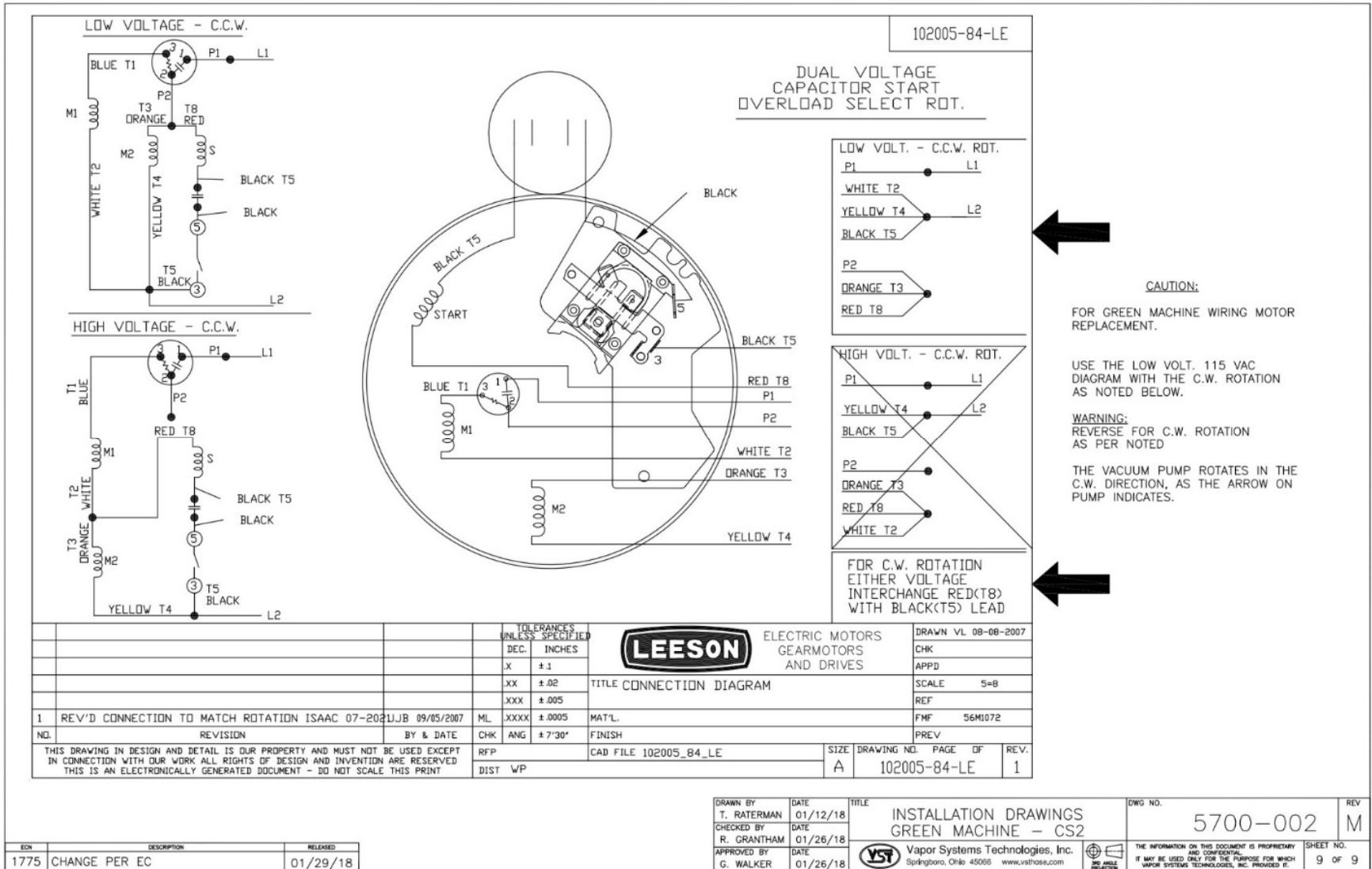


Figure 9-15: Junction Box Motor Wiring Diagram