

Airend Reinstallation Procedures and Startup

Proper installation is critical to airend life.

IMPORTANT: Keep the inlet covered to prevent any foreign material from entering the chamber, until the unit is in place.

- 1) **Motor Bearings:** install new motor bearing, and inspect covers for wear. If the bearing are loose in the pockets, vibration will be transmitted to the front airend bearings and this will lead to premature failure.
- 2) **Airend and motor coupling halves should** be mounted on shafts and **slide freely**. This will enable you to adjust the coupling element.
- 3) **Drain oil** from the system and remove all oil piping, filter housings, sumps, and oil coolers. **Clean thoroughly** all the components to **remove all the metal particles** in the system. Most reinstalled airends fail because metal particles left in the machine clog the orifices.
- 4) Steam clean oil coolers inside and out.
- 5) Replace all filters in system and **precharge** the oil filter with fresh oil, this can be done with supplying outside air pressure 5 psi to the sump and flowing oil through the coolers, oil filters and stop valves. Units with a stop valve will have to be pressurized to keep the valve open. Use a five (5) gallon container to capture any overflow. At this time you can also check how clean the system is. **If any questions, please call.**
- 6) **IMPORTANT:** coupling **alignment** and **placement** is critical to airend performance and longer life. Install the new coupling per the **manufacturer's installation instructions**. There should be a gap on insert type couplings and bolt-on couplings. Make sure that you are **not forcing** the coupling cushion in place. This will add **additional load** on the pilot and motor bearings which will cause **premature failure**. The coupling should be aligned to within .005 both ways.
- 7) Remove the inlet cover and **pour fresh oil** in the main casting. You want to see it filled halfway. After this is done **turn** the unit **over by hand** in the direction of the correct rotation to purge the airend of oil. This is done to insure that the air gaps and bearings are coated with oil before starting. Because it takes a couple of seconds for the oil pressure to build-up along with the tight clearances it is possible to seize the airend if these steps are omitted.
- 8) Mount the inlet and control piping.
- 9) Make sure all the Airend bolts are tight and oil piping is secure and tight
- 10) **Jog the motor and check rotation**. This also insures that the oil is out of airend cavities.
- 11) Start the unit and run for **15 minutes**. Check all the oil lines and make sure they are warm and oil flow has been established. **Check for oil leaks and vibrations.**
- 12) **Shut down unit** and check all the oil orifices leading into the airend for metal or other particles. **Check** the blow down valve. If not working properly it could **blowout the seal**.
- 13) **Change oil filter** after the first **50 hrs** and then every **500 hrs** there after.
- 14) Use a good quality **synthetic oil** for **longer life** and a cleaner system.
- 15) Use **thermal gun** to record discharge temperatures, oil injection temperatures, and oil temperatures entering and exiting coolers. This information **should be saved for future reference**.
- 16) When the airend comes from the factory, they are designed to run within 100 degrees of ambient. If it is eighty degrees outside, the unit should be running at 180 degrees. If you are experiencing high temp., check the coolers, thermal bypass, and oil filter housing. Sometimes the bypass valve breaks apart and blocks the oil flow.
- 17) Follow **manufacturer's recommendations** for all other related services.