

Low Flow



Many believe that the number of fins or vanes on the impeller directly increases the pressure and flow through the water pump; however, this is not necessarily true.

The number of vanes or fins is not the driving factor for increased flow. It is actually the impeller clearance that increases flow and performance. Impeller clearance is the distance from the top of the impeller vane to the bottom edge of the housing raceway. This clearance is critical in assuring the correct system pressure and flow. In order to achieve proper impeller clearance, the manufacturer's precision tooling must precisely set each pump to achieve the tightest clearance possible.

Here's a common technique in testing for a low-flow situation:

1. Drain the coolant level down to the radiator tubes
2. Get the engine hot
3. Shut the engine off for ten minutes and let it set to make sure the thermostat is wide open
4. Start the engine and run it to 3000 rpm.
5. Look down into the top of the radiator tank with a flashlight and you should see strong circulation, if not, then you are dealing with a low-flow situation.