



Powerdyne Impeller Installation Tips

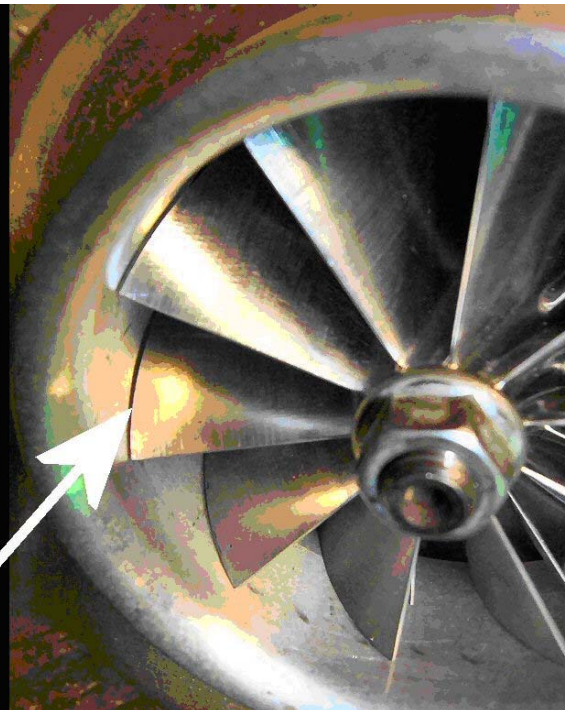
NOTE: YOU must confirm that you have spaced the impeller correctly on the shaft so it will not hit the casing. The instructions below will show you where to measure. Impellers are **NOT RETURNABLE** after they are installed.

Impeller Installation Instructions

- 1) Make an index mark on the outside of your supercharger volute so when you put it back on, you know which way the outlet points.
- 2) Remove the small 7/16" bolts that hold the volute on to the supercharger. There are usually 6 or 7 of them. Remove the volute.
- 3) Test-fit the new impeller now into your volute before going any further. It must have at least .006" clearance between every blade and the volute as shown in the picture below. If it does not, stop now and call us at 920-485-0488 to discuss your options.

You can have more than .006" inch of clearance, just not less. If this measurement is OK, then proceed with the next step.

Check the gap between the impeller and the scroll where shown. You must have a minimum of .006" clearance between the vanes and the sides.



4) Remove the single nut that is on the end of the impeller shaft. This is all that holds the impeller on.

Slide the old impeller up and off the shaft. If it is stuck, warm the impeller with a propane torch to expand it – this will make it slide off easier.

Remove all the shims from the impeller shaft, putting only the large one at the bottom back on. See picture.



This shim will be under your old impeller and it goes back on with our impeller also. Remove all the small, thin shims.

6) Slide the new impeller onto the impeller shaft. On **Powerdyne's** it will likely slip right on. Do not install the nut onto the shaft at this time.

7) Put the volute back on the case with just one or two of the attaching bolts. Now reach into the intake opening and pull the impeller up until it hits the volute. You want about .006" clearance between the impeller and the case. If you can move the impeller more than .006", then add shims beneath it.

Repeat this test until you have .006" between the impeller and the volute. Then you may re-install the impeller hold-down nut on the impeller shaft (you can do this without removing the volute). We recommend a drop or two of Loctite blue on the threads. Torque to 28-30 ft lbs.

- 8) "Clock" your volute into the right position by lining up the index mark you made in step 1, then install the crescent-shaped locking washers and tighten all the small 7/16" bolts to keep it in place.
- 9) Check the clearance again at the edges of the impeller vanes as in Step 3. The impeller should be dead-centered in the bore. If it is not, the bearings are not installed correctly or the case is damaged.
- 10) You are all done! Put the supercharger back on the car and enjoy it. Check your tune to be sure that your car is still fueling correctly at the higher boost levels.

Carl

Carl Fausett,
920-485-0488
carl@928motorsports.com

928 Motorsports, LLC. Patent #D554,150 S
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