



## Typical Vortech Impeller Installation

**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.

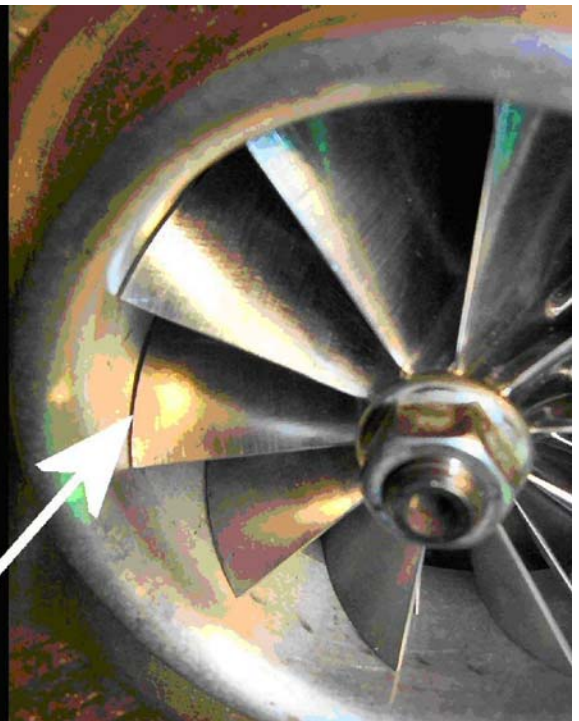
### Impeller Installation Instructions

- 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 fasteners that hold the volute on to the supercharger. There are usually 6 or 8 of them. Remove the volute.
- 3) Test-fit the new impeller now into your volute before going any further. It must have *at least* .003" 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 .003" inch of clearance, just not less. If this measurement is OK, then proceed with the next step.

**Check the gap  
between the  
edge of the  
impeller vane  
and the volute.**

**You should  
have a  
minimum of  
.003" on  
each side  
of the impeller.**



- 4) Remove the single nut that is on the end of the impeller shaft.. You can try to remove the impeller now, but it is unlikely that it will move just yet. This is because the fitment of the impeller to shaft by Vortech is very good, and slightly tapered.
- 5) Put the nut you just removed back on the threaded end of the shaft by only one or two turns. Now warm the impeller with a propane torch to expand it. Move the torch around so it does not concentrate on just one spot. When the impeller is warm, lift the supercharger and hold it up-side down so that the impeller points down. Have an associate tap UP on the impeller shaft and the impeller will walk its way down and off the shaft by gravity. Do not drop it!

Under the Vortech impeller, you will find a heavy thrust washer. Leave it there—it provides the sealing surface for the face seal, and also shims the impeller to the correct height. Only remove it if you are replacing the face seal below it, then be sure to remember to put it back on.

- 6) Slide the new impeller onto the impeller shaft. Pre-heat the impeller before installing to help it slide onto the shaft. We use a hot plate for this, but you can use the same propane torch you used before also. If using a torch, remember to move it around to distribute the heat evenly. When the impeller is warm enough, it will literally drop on to the impeller shaft and slide right to the bottom.
- 7) Install the nut and tighten it to between 28 and 30 ft lbs.
- 8) “Clock” your volute into the right position by lining up the index mark you made in step 1, and install the small fasteners and clamps to hold 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. You may need to re-tune your engine to provide more fuel for the increase in air that it is about to receive.

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