VMP Ultimate Pulley Removal and Installation Tool for 2.5” to 3.15” Pulleys

Parts List:	Qty:	Usage:
Clamshell Set	2	Clamps onto pulley
3/8”-16 bolts x 3”	2	Holds clamshell together
3/8”-16 bolts x 4”	2	Holds clamshell to square bar
Square bar	1	Used for pulley removal only
3/4”-16 ‘big bolt’	1	Used for removal and installation
M8 x 40 full thread screw	1	Used for installation of pulley
M8 x 40 partial thread screw	1	Used for removal of pulley
Large bearing	1	Used for installation of pulley
Small washers	2	Used for removal of pulley
3/4”-16 ‘big nut’	1	Used for installation of pulley
Grease Packet	1	For big bolt threads, nut, & washer
U-plate	Opt	For removing 03/04 Cobra Pulley

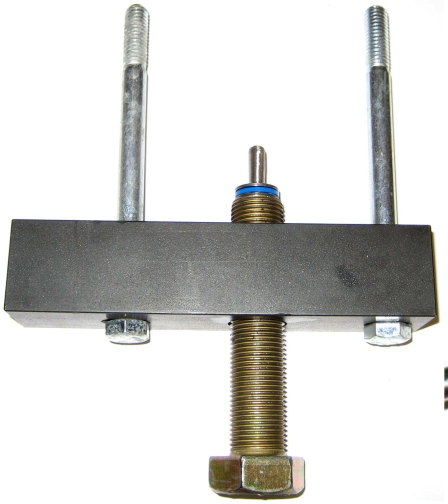
Tool List:	Usage:
9/16” socket	For 3/8” bolts
1 1/8” socket	Turning big bolt head during removal & installation
1 1/8” wrench or Adj. wrench	Holding big nut during installation
3/8” ratchet-long	For removing 10-rib SC belt
1/2” ratchet	
Long 3/8” extension	Insert into side of square bar for leverage

The VMP pulley tool is designed to remove press-fit pulleys from GT500s with TVS or M122 blowers, and Roush Mustangs with M90 or P51 TVS blowers. It will remove the stock pulley found on Lightning and Roush F150 trucks. It will remove the pulley from an 03/04 Cobra pulley with the optional plate. The tool will accommodate pulleys 3.15” diameter to 2.5” diameter. Any size pulley or hub may be installed with this tool. The tool grabs the pulley by the ribs and applies equal force 360* around the pulley for easy damage-free removal.

Instructions for removal of pulley

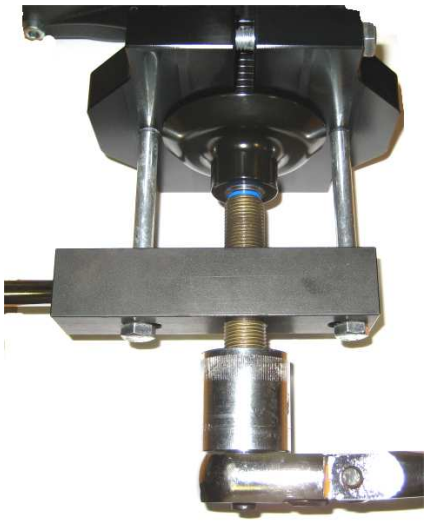
- Release the supercharger drive belt, on a GT500 this is best done by taking a long 3/8” flex head ratchet with a short one inch long 3/8” extension and placing it on the tensioner then pushing it towards the driver side and down, while lifting the belt off the pulley with your left hand.
- Remove cap from blower snout by holding it and turning the pulley ClockWise. Some caps are not pushed all the way in and will easily spin out. If your cap is pushed all the way in you will need to get under it with a blade or thin edge and apply a little outward pull while spinning the pulley CW to get it started on coming out. If you Cobra or Lightning blower has a bolt instead of a cap you may remove it.
- Attach clamshell to pulley using supplied bolts. Clamshell may be placed all the way forward on pulley. Tighten very snug on steel pullies; be careful not to over tighten if you are removing an aftermarket aluminum pulley. If you are removing a stock 3.55” cobra pulley use the optional plate instead of the clamshell.
- Thread big bolt into square bar, apply grease to the fine threads.
- Thread *partially threaded* M8 set screw all the way into the end of the big bolt, smooth end is now exposed, place the small washers over it and all threads should not be completely covered. This serves to keep the tool aligned in the end of the blower shaft.

- Apply some grease to the small washers to reduce friction.
- Insert square bar, big bolt, and partially threaded set screw assembly into the end of the blower.
- Insert long 3/8” bolts through slotted holes in square bar and thread into clamshell
- Place long ½” ratchet and 1 1/8” socket onto the big bolt, a wrench may be used but a ratchet is faster and less likely to pop off.
- Insert a 3/8” extension into the hole on the side of the square bar for leverage, extension(s) equaling about 12” long are ideal.
- Hold the extension with your left hand, you may rest it on top of the thermostat housing, and turn the ratchet clockwise with your right hand, this will push on the blower shaft and result in the pulley being pulled forward off of the shaft.
- At first it may be very tight and then POP it will break loose and start to turn more easily.
- Continue removing the pulley, when done, remove the big bolt from the square bar as you will need it for installation.



Setup for any pulley

Setup for 03/04 Cobra pulley



Setup for GT500 pulley(and others)

Instructions for installation of pulley

- To assemble the tool for installation take the big bolt out of the square bar
- Remove the partially threaded M8 set screw from the end of the big bolt, you may need to use plyers
- Thread the fully threaded M8 set screw into the end of the big bolt
- Thread the big nut about 2/3 of the way up the bolt, there should still be some grease on the threads
- Place the large caged thrust bearing on the bolt
- The tool is ready to use and should look like this:

- Place the pulley or hub over the tool, then put the tool up to the shaft of the blower and begin to thread it into the blower. If using a hub make sure it is installed with the flat side facing the back of the car.
- You should be able to get 15-20 turns on it before it stops. It should go in easy enough that the blower shaft does not turn. If it is hard to thread in make sure you are not cross threading it and make sure the threads in the blower shaft are not damaged. In the event the threads in the blower are somehow damaged you can use a standard pitch M8 x 1.25 tap from NAPA or Ace to chase the threads.
- Once the tool is threaded into the blower shaft, hold the pulley straight and turn the big nut ClockWise by hand until it is snug up against the pulley. You need some pre-load before you start using wrenches. If the pulley is not perfectly straight do not worry, it will straighten itself out when it is pressed on.

- Now you can put a ratchet on the big bolt's head and a wrench on the nut, at first, hold the big bolt and turn the nut ClockWise a few turns, then once everything tightens up you can begin to use a motion that brings both the wrench and ratchet up and together and presses the pulley on at the same time, once you get this going this is the fastest way to install it. You just have to make sure the large nut is threading out on the big bolt and pressing the pulley on, you do not want the small M8 set screw threading out of the blower shaft, the bearing is there to prevent this, but in the event the bearing binds up it may want to thread out of the blower shaft, so be aware of this.
- BE CAREFUL not to press the pulley or hub on too far, you want the front of the pulley to be flush with the front of the shaft, when you are getting close (you'll feel the pulley getting harder and harder to press on) you'll want to back off the nut and visually look to see if its been pressed on far enough. If the pulley seems to bind up during installation STOP, back off the nut, inspect, and try again. It is the point when things bind up that they get broken.

WARNINGS:

- Grease helps tremendously to lower friction and reduce effort, it should be placed on the big bolt's threads and the small washers. Pulley installation and removal tools do not break because the parts are not strong enough, they break when they bind up and you have to put an excessive amount of force into them trying to turn them.
- There are two M8 set screws supplied. One is partially threaded, this is for pulley removal only and should be installed in the big bolt, with the smooth side going into the blower shaft. The fully threaded M8 set screw is for installation only, it holds the big bolt to the blower shaft and allows you to press the pulley onto the blower.
- Don't mess up the threads in the blower shaft, make sure the threads on the partially threaded M8 set screw are completely covered by the washers and the set screw is threaded into the big bolt as far as it will go. It's very easy to mess up the first thread or two in the blower shaft if you are not careful.
- In the event you do slightly damage the threads on the blower shaft they can be chased with an M8 tap to clean them up.
- Don't press the pulley or hub on too far, stop and check when installing it, it should be flush with the front of the shaft.
- A warm blower or engine is okay, but if the pulley is hot enough to burn you then it should be left to cool down until you can touch it again.