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Installation Instructions

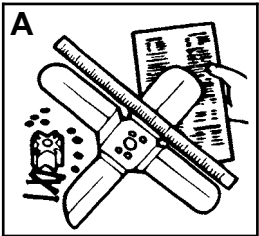
This guide covers the following Item Numbers:
 Series: 83000/93000, 84000/94000
 Series: 85000/95000, 86000,96000

Congratulations, you have made a wise decision. Thank you for purchasing our product.

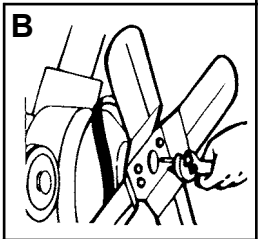
TURBO-FLEX® FLEX FANS

IMPORTANT! READ ALL INSTRUCTIONS BEFORE BEGINNING INSTALLATION.

At low RPM the specially designed blades scoop the air, or cut a larger volume of air when it is needed most. At higher RPM, the blades flatten out and the ram air takes over for cooling. This variation of pitch in the blades produces less noise, better fuel economy, and increases the available horsepower. Laboratory and wind tunnel tests have shown that these flex fans deliver good cooling at low RPM range with minimal drag and less horsepower requirements at highway speeds. These fans are properly balanced to eliminate vibration and drag.

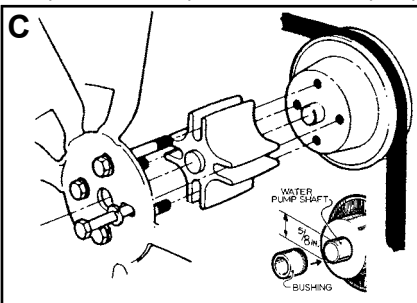


After selecting the correct fan and spacer, double check the diameter of the fan by measuring from the tip of one blade to the tip of the opposite blade (illustration A). Remove old fan (and fan clutch, if applicable) by loosening the four (4) bolts at the front of the fan (illustration B). Loosen all fan belts that come in contact to the water pump pulley(s). Remove the four bolts that retain the fan. Detach the old fan and fan clutch. If the vehicle is not equipped with a fan clutch, the original fan spacer may possibly be used with the new fan.

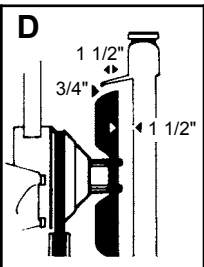


After removal of the old fan/fan clutch, place the fan spacer on the water pump shaft.

Make sure that the fan spacer seats squarely on the water pump flange/pulley. Make sure that the fan spacer pilot hole and the water pump pilot shaft match. If a new fan spacer is needed, refer to the chart below. Place the new fan on the fan spacer, fitting the center hub over the pilot of the spacer. Insert the four bolts and tighten. Make sure that the bolt thread matches that of the water pump flange. Torque bolts to 15 - 23 ft. lbs. (21-32 Nm). Be careful not to strip the threads (see illustration C).

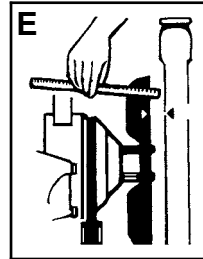


CARS WITH FAN SHROUDS— The fan should be positioned inside the shroud approximately one half of its pitch angle, but no closer than 1" (25mm) from the radiator. The fan should also clear the lip of the fan shroud by 1" to 2" (25mm to 50mm) or more (see illustration D). **CARS WITHOUT FAN SHROUDS**— The fan should be positioned so that it is 1" to 1 1/2" (25mm to 38mm) from the radiator, and have a 1" (25mm) clearance on the diameter and 1/2" (13mm) clearance to the rear of the blade. Be sure that the fan clears all hoses, belts, and other engine parts.



Tighten all fan belts. Measure all points to be sure that your fan is spaced properly. (see illustration E). Check the front and back of fan to be sure that it clears all engine parts. Check all four bolts again to be sure that they are tight. **NEVER**

TURN ENGINE WITH THE FAN BLADE. An inspection should be made a couple of weeks after installation. A normal variance of approximately 12 degrees in the pitch of the blades may be observed. This variance is within the normal tolerance specification levels of the material of which they are made. Always inspect the fan blade along with the fan belts during regularly scheduled vehicle maintenance.



NOTE: All fans are rated to 10,000 RPM. NEVER rev the engine while standing over or in line with the fan. Extremely high or rapid revving creates high G's of acceleration which could result in blade fatigue and / or damage. **ALWAYS KEEP HANDS AND FINGERS**

AWAY FROM FAN. It is solely the responsibility of the end user to determine the correct fan for the intended application, i.e. size, rotation, placement and spacing.

When replacing a fan clutch with a heavy duty, high performance (wide) fan blade, generally a 2 1/4" fan spacer is recommended, while a 2" spacer is recommended for a standard duty (narrow) fan blade. To replace a thread-on fan clutch, use fan spacer part number 23118.

FAN SPACER SELECTION CHARTS

Universal Sizes

| Part No. | Length | Pilot | Bolt Size and Length |
|----------|--------|-------------|-------------------------------------|
| 24100 | 1" | .625 / .750 | 5/16-18 x 1 3/4" & 5/16-24 x 1 3/4" |
| 24150 | 1 1/2" | .625 / .750 | 5/16-18 x 3 1/4" & 5/16-24 x 2 1/4" |
| 24200 | 2" | .625 / .750 | 5/16-18 x 2 3/4" & 5/16-24 x 2 3/4" |
| 24225 | 2 1/4" | .625 / .750 | 5/16-18 x 3" & 5/16-24 x 3" |
| 24250 | 2 1/2" | .625 / .750 | 5/16-18 x 3 1/4" & 5/16-24 x 3 1/4" |
| 23118 | 2" | 1.180 | 8mm x 70mm |
| 23750 | 2 1/4" | .625 / .750 | 6mm x 80mm & 8mm x 80mm |

Custom Fit Sizes

| | | | |
|-------|------|-------|-------------------------|
| 21050 | 1/2" | .625 | 5/16-24 x 1 1/4" |
| 23125 | 2" | 1.250 | 6mm x 70mm & 8mm x 70mm |
| 23202 | 2" | taper | 6mm x 70mm & 8mm x 70mm |
| 23863 | 1/2" | .863 | 6mm x 30mm |