**AEROMOTIVE**

**Part # 31101 Vacuum Pump**

**INSTALLATION INSTRUCTIONS**

**CAUTION:**

Installation of this product requires detailed knowledge of automotive systems and repair procedures. We recommend that this installation be carried out by a qualified automotive technician.

When installing this product, wear eye goggles and other safety apparel as needed to protect yourself from debris.

Aeromotive system components are not legal for sale or use on emission controlled motor vehicles.

Looking from the front end of the pump, inlet and outlet depend on the pump's direction of rotation as shown below.

<table>
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<tr>
<th>Inlet</th>
<th>Outlet</th>
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Pump inlet and outlet ports are both AN-12 ORB o-ring ports. Cutoff AN-12 fittings with o-rings must be used in these ports. Fitting length from the hex to the end of the fitting, as shown below, can be no greater than .650", or damage to the pump will occur upon startup. We recommend using Aeromotive Part Number 15612 in both the inlet and outlet ports.

Pump Length Max .650"

We recommend you contact your engine builder concerning the correct level of crankcase vacuum for your engine. In most cases, the maximum recommended crankcase vacuum is as follows:

- Wet sump oiling system - 13" Hg
- Dry sump oiling system - 21" Hg

Exceeding these values may result in engine damage.
The following components will also be required to complete your installation:

**Pump Pracket**
- Small Block/Big Block Chevy or Motor Plate Mount - Aeromotive P/N 31701
- Small Block Ford - Aeromotive P/N 31702

**Pump Pulley**
- 5" V Belt Pulley (uses 36° x 1/2" wide V belt) - Aeromotive P/N 31703
- 28 Tooth Gilmer Pulley (uses 3/8" pitch x 3/4" wide Gilmer belt) - Aeromotive P/N 31704

**Crank Pulley**
- 4" V Belt Pulley (uses 36° x 1/2" wide V belt) - Aeromotive P/N 31705
- 2.5" V Belt Pulley (uses 36° x 1/2" wide V belt) - Aeromotive P/N 31706

Select and purchase your pump and crank pulleys based off of the pump speed and level of crankcase vacuum you wish to achieve. We recommend a drive ratio of 50-80% of crankshaft speed with a maximum pump speed of 6000 rpm. We recommend you also purchase and install the Aeromotive Vacuum Regulator P/N 33101, to give you even greater control of your engine's crankcase vacuum.
**AEROMOTIVE, INC. LIMITED WARRANTY**

This Aeromotive Product, with proof of purchase dated on or after January 1, 2003, is warranted to be free from defects in materials and workmanship for a period of one year from the original date of purchase. No warranty claim will be valid without authentic, dated proof of purchase.

This warranty is to the original retail purchaser and none other and is available directly from Aeromotive and not through any point of distribution or purchase.

If a defect is suspected, the retail purchaser must contact Aeromotive directly to discuss the problem, possible solutions and obtain a Return Goods Authorization (RGA), if deemed necessary by the company. Please call 913-647-7300 and dial option 3 for the technical service dept. All returns must be shipped freight pre-paid to the company and with valid RGA before they will be processed.

Aeromotive will examine any product returned with the proper authorization to determine if the failure resulted from a defect or from abuse, improper installation, misapplication or alteration. Aeromotive will then, at its sole discretion, return, repair or replace the product.

If any Aeromotive product is determined defective, buyer’s exclusive remedy is limited in value to the sale price of the good. In no event shall Aeromotive be liable for incidental or consequential damages.

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Aeromotive expressly retains the right to make changes and improvements in any product it manufactures and sells at any time. These changes and improvements may be made without notice at any time and without any obligation to change the catalogs or printed materials.

Aeromotive expressly retains the right to discontinue at any time and without notice any Aeromotive product that it manufactures or sells.

This warranty is limited and expressly limits any implied warranty to one year from the date of the original retail purchase on all Aeromotive products.

No person, party or corporate entity other than Aeromotive shall have the right to: determine whether or not this Limited Warranty is applicable to any Aeromotive product, authorize any action whatsoever under the terms and conditions of this Limited Warranty, assume any obligation or liability of any nature whatsoever on behalf of Aeromotive under the terms and conditions of this Limited Warranty.

This Limited Warranty covers only the product itself and not the cost of installation or removal.

This Limited Warranty is in lieu of and expressly excludes any and all other warranties, expressed or implied. This Limited Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.