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**Installation Instructions for the
RMS18 & RMS19 Viton®
One-Piece rear main seal**

Overview:

You have purchased the most advanced rear main seal on the market for the traditional Pontiac V-8. This revolutionary design features a number of state of the art innovations including relocation of the parting line which greatly reducing the risk of leaking, a more pliable construction that will work more effectively in engines with seal groove geometry issues, and double lip design to provide twice the protection against leakage as well as supporting outstanding vacuum numbers.

Crankshaft:

We do not recommend installing the one-piece seal with the crank installed because the seal must be fit to the seal groove. See installation notes on other side of instructions. Some aftermarket cranks have aggressive serrations; these should be avoided or polished out while maintaining the proper diameter specifications.

Preparation:

Locate the small hole in one of the square indents side of the seal. At this position you should cut the seal straight across (radially) using a very sharp blade. This cut will re-mate perfectly when the seal is installed. Next fill the groove between the seal lips with a high pressure grease prior to assembly.

Position:

If you examine the seal closely you will see that there is a helix pattern on the oil control lip. This lip goes towards the front of the engine, not to the flywheel side. Note that the RMS18 and RMS19 have square indents on opposite sides, therefore you must look at the seal lip to get the proper direction. The radial split line should be ideally towards the top of block, but for convenience can be placed about ½ inch off the block parting line in the cap side.

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Important Installation Notes: (Seal Groove)

Occasionally the seal groove may not be concentric with the crank centerline This condition can be measured if desired. Also, the groove may be too small due to manufacturing variations or align boring. To check this position the seal in the block-cap assembly and tighten. Look through the crank hole to ensure the seal ends are mating properly. Check for distortion at the parting line. Seal lips should flow though the parting line smoothly. Excessive distortion or buckling from too small of a groove can be eliminated by removing material from the outside diameter of the seal to "relax" the seal in the groove until the parting line looks fluid. One last check if you have the tools is to measure and compare the installed seal lip diameter to the crank diameter. Approximately .025 inches of lip engagement on the diameter should be present. Call for additional installation information

Installation: RMS18 (Crankshaft Out)

The anti-rotation holes in both the block and cap should be filled with a quality silicone just prior to installation. Fill the holes flush and install the seal while sealer is still pliable. Fill the groove between the seal lips with a high-pressure grease prior to assembly. Carefully open the seal like a "Slinky" and flex the seal around the crankshaft. The radial split line should be ideally towards the top of block, but for convenience can be placed about ½ inch off the block parting line in the cap side. Carefully set crank/seal assembly into the block. Care should be taken to make sure that the seal does not get mis-aligned during assembly otherwise damage may occur. Reinstall main cap & torque.

Installation: RMS19 3.25-inch (Crankshaft Out)

The installation is the same as the RMS18 however, The anti-rotation holes in both the block and cap MUST be filled with silicone just prior to installation.

Specifications:

RMS18 Sealing Diameter 3.188" +/- .003" Groove Diameter 3.812" +/- .005"
RMS19 Sealing Diameter 3.437" +/- .003" Groove Diameter 4.012" +/- .005"