

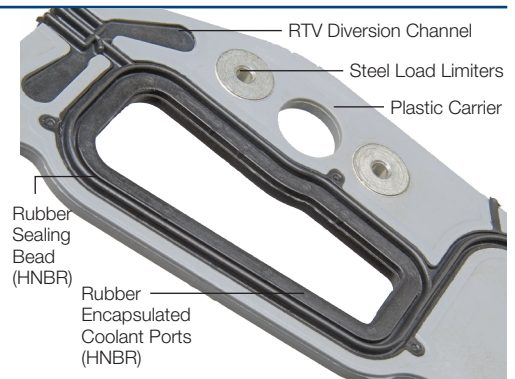
# SOLUTIONS

## General Motors 3.1L and 3.4L Intake Manifold Installation Sets

### ISSUE:

The intake manifold gaskets on late model General Motors (GM) engines have a tendency to fail prematurely because of damage to the coolant port area caused by a combination of heat, motion, and the corrosive effects of organic acid technology coolant (OAT) on the carrier and sealing bead.

Moreover, when servicing the intake manifold on these engines, technicians often need to buy additional gaskets that are not normally found in traditional intake manifold gasket sets. These include valve cover gaskets, injector o-rings, water and emissions connections, and other miscellaneous gaskets.



### RESOLUTION:

MAHLE Original redesigned the intake manifold gaskets for GM 3.1L & 3.4L V6 engines. This revolutionary gasket features:

- A hydrolysis-resistant plastic carrier that does not absorb fluid.
- Acid-resistant Hydrogenated Nitrile Butadiene Rubber (HNBR) sealing beads. Original equipment and aftermarket engineers consider HNBR to be the best material available for withstanding damage from harsh coolant system chemicals.
- HNBR encapsulated coolant ports that help prevent coolant port leaks.
- Steel load limiters that prevent the gaskets from crushing during installation and that help the gaskets maintain a consistent load during engine thermal cycling.
- RTV diversion channels unique to the aftermarket that keep RTV material from migrating to the sealing bead, causing gasket failure.

In addition, MAHLE Original has a Manifold Installation Set (MIS) for the GM V6 engine. The MIS kit includes all of the gaskets and other items needed for a technician to properly service the intake manifold.



MAHLE Original 3.1L & 3.4L Manifold Installation Set

### APPLICATION:

MAHLE Original part numbers are:

- **MIS16166** - GM Car 3.1L OHV VIN M V6 1993-1996
- **MIS16259\*** - GM Car 3.1L VIN J, 3.4L VIN E 1999-2005 & GM Truck 3.4L VIN E V6 1996-2005
- **MIS17892** - GM Car 3.1L OHV VIN M V6 1995-1999
- **MIS16259WB** - GM Car 3.1L VIN J, 3.4L VIN E 1999-2005 & GM Truck 3.4L VIN E V6 1996-2005

\* Manifold installation bolts (GS33420) sold separately.