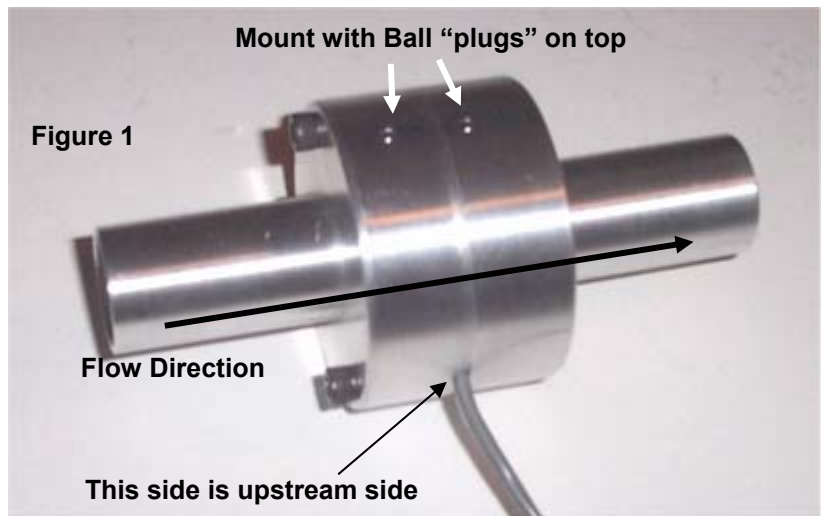# Blow By Sensor Installation Tips

The Blow By Sensor lets you measure the CFM flow from your crankcase. To be accurate you should seal up the crankcase, valve covers, etc. You should eliminate any type of PCV valve, or routing of the crankcase vapors out of the engine. Typically you will have the breather of one rocker cover as being the only outlet of blow by gasses.



**Figure 1**

Mount with Ball "plugs" on top

Flow Direction

This side is upstream side

You will route this outlet to the inlet of the Blow By Sensor with a large diameter, non restrictive hose. After the sensor, vent these gases with a large diameter, non-restrictive hoses to a safe, well ventilated area. **Blow by gases are exhaust which has passed by the piston rings and should not be breathed.**

The Blow By sensor should be mounted approximately level, with the side with the 2 ball plugs on top. The round section with the notch for the sensor lead is the upstream side of the sensor. See Figure 1.

The sensor may collect liquid from condensation and oil vapors. You should periodically check by removing hoses and letting hoses drain, and tipping condensation out of both sides of sensor. When moving sensor which has accumulated liquid, be careful to keep the ball "plugs" up, so liquid can not get to this top side of the channel inside the meter.

In the DataMite software, pick Blowby Sensor for your range of sensor as the Type (Fig 2). Figure 2 also shows the calibration for older DataMite software or for other dyno computers. The output is non-linear and requires you to select the Type as "Custom (user supplies table)" as shown. This will open up the right side of the screen called "Sensor Calibration Table".

You can choose any Data Name you want. Then set the "Signal Based On" to "0-5 Volts". Fill in the table with the 10 pairs of values shown.

The Blow By Sensor **does** put a small restriction on the blowby flow, and therefore does put a small pressure on the crankcase. A signal of 2 volts (about 6.7 CFM) will produce 0.15 psi pressure. At full scale of 5 Volts (about 13.3 CFM), the pressure will be about 0.6 psi.



**Figure 2**

Later versions of software list Blowby Sensor in the list of "Types". Be sure to pick the correct range for your particular Blowby Sensor.