

Atmospheric air that has been restricted by the throttle plate. Since the cylinder can displace air faster than the throttle plate can deliver it, a deficiency occurs here when compared to the air outside the intake. Assuming a cruising vacuum of 10 in., we have a pressure of about 5 psi when referenced to atmospheric pressure.

Atmospheric pressure against the outside of the throttle plate. At sea level, this is about 15 psi.

EGR flow restricted by valve

Exhaust system pressure at about 1 psi to 4 psi above atmospheric pressure

Intake air charge in cylinder containing about 6% to 10% EGR gases.

