

CRV® TO BOOST SUPERCHARGER PERFORMANCE

LOW COST GREEN TECH DEVICE INCREASES POWER & EFFICIENCY

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CRV® INCREASES LOW END TORQUE

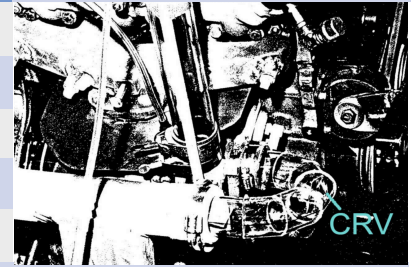
CRV® INCREASES ENGINE AIR INTAKE

CRV® REDUCES CO₂ EMISSIONS

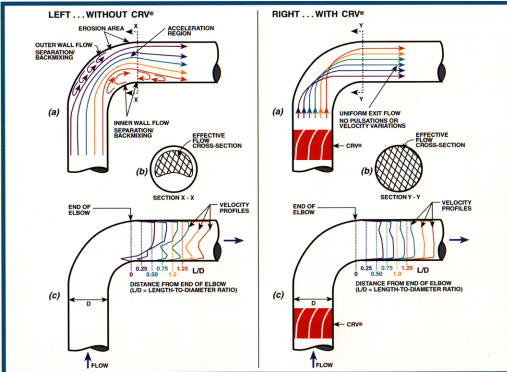
CRV® INCREASES MPG

CRV® INCREASES LOW END PERFORMANCE OF ENGINE

CRV® IS A LOW COST SOLUTION WITH HIGH RETURNS



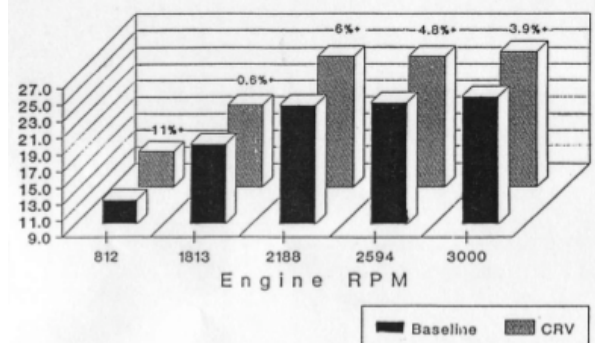
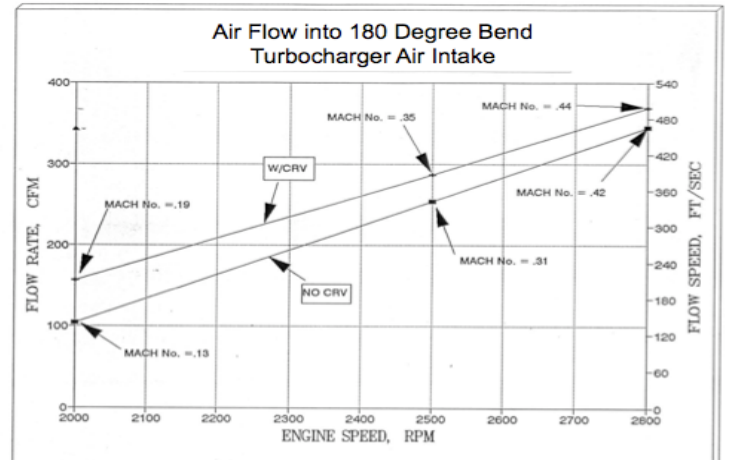
Turbocharged VW Engine w/CRV®



Engine Intake air plumbing often has recirculation or separation regions along the inner turn radius of the elbows. These turns reduce the flow cross-section area limiting the flow and increases pressure losses within the entire system. In a plain elbow (left), a skewed velocity profile results. With a CRV® mounted in front of the elbow (right), there is a flat velocity profile. CRV® rotates the air intake flow entering an elbow eliminating the separation flow in those bends, increasing the air flow rate and providing more boost for the same sized turbocharger or supercharger engine.

Inflow in Turbocharger with and without CRV®

CRV® removes the distorted airflow to the inlet of turbochargers, caused by cramped space under the hood. The experiment shown was conducted on a turbocharged 40 hp VW rabbit diesel engine by inserting a CRV®, in the intake manifold. The measurement uses an airflow meter at the intake of the turbocharger to measure the inflow vs. rpm with and without a CRV. Addition of a CRV to remove the inlet distortion shows that the air flow at lower rpm is substantially increased by as much as 50% at 2000 rpm, and was increased at 2800 rpm by 5.3%. It substantially increased the low end performance of the diesel engine. Without this CRV® modification the airflow to the turbocharger is highly distorted where the turbocharger cannot perform at its best.



Cheng Fluid Systems, Inc., has been established since 1990 and is located in Mountain View, California. The CRV® has a significant market and a wide range of applications, from fuel systems in aircraft and automobiles to large industrial and utility complexes, such as chemical processing, power plants and water distribution utilities. The value and effectiveness of the Company's products have been proven in over 2,000 installations with over 1500 being used by Fortune 500 chemical, refining, and power companies.

