Greatly improves mixing and combustion efficiency on older large bore scavenged engines.

At the same air manifold pressure, the HyperFuel Valve™ System:
- reduces fuel consumption by up to 5%
- reduces NOx by 30% to 70%

Eliminates governor, actuators, linkages, mechanical injectors, push rods, and lifters.

“Electronic Camshaft” controls injection duration and engine speed.

All electric system requires no hydraulics.

Provisions for built-in pressure sensor and automatic balancing system.

CSA Certified, Class I, Division 2, Groups C & D.

The HyperFuel Valve™ System, developed jointly by Altronic, Inc. and the Hoerbiger Corporation, is designed to dramatically improve combustion in older large bore engines, which suffer from poor in-cylinder mixing of air and fuel. The system utilizes existing sources of high-pressure gas, typically suction or discharge pressure, which is injected into the cylinder by the electronically actuated and controlled HyperFuel Valve™. The gas pressure itself is used as the “muscle” for the two-stage valve, so that no hydraulics are required to assist the valve actuation. The result is to achieve a highly homogenous mixture, which is more easily ignited, burns more completely, produces fewer emissions, and improves fuel economy.

The HyperFuel Valve™ Controller precisely controls the injection event, effectively serving as an “electronic camshaft”. It also acts as a high precision electronic governor, replacing hydraulic governors, actuators, and linkages. Mechanical fuel valves, push rods, and lifters are also completely eliminated. The HyperFuel Valve™ incorporates provisions for a pressure transducer, and is offered with an optional cylinder pressure balancing system utilizing highly sophisticated Continuous Pressure Monitoring (CPM™) technology and algorithms.

The results on a number of different engine makes and models have been impressive. Extensive laboratory and field tests have demonstrated that the HyperFuel Valve™ System provides an attractive payback in terms of fuel savings (3% to 5%), better combustion, better starting, better light load operation, and mechanical simplification. It also provides significant NOx reduction (30% to 70%) at a given equivalence ratio and can be combined with other modifications (such as turbocharger improvements) to meet stringent emissions regulations.

The bottom line is simple: The HyperFuel Valve™ System works — and works well. Compared to a hydraulically-based system, the HyperFuel Valve™ System is less complicated and less expensive. And you don’t have to worry about hydraulic leaks compromising engine operation and safety.

See the reverse side for a System Diagram.