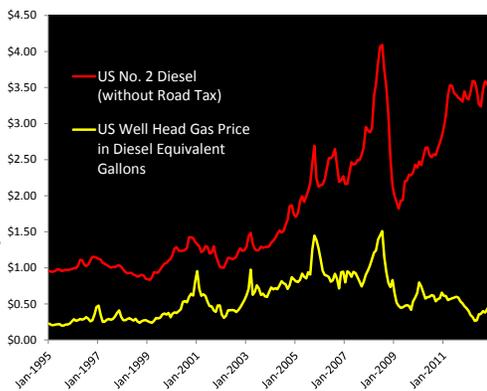


GTI+ Bi-Fuel System

Altronic is proud to introduce the GTI+ Bi-Fuel system. Building on the experience of over 3000 installed systems worldwide, the GTI+ platform offers improved performance through the use of an innovative new mixer design and fully electronic, closed-loop fuel control valve-based gas train. The design increases system responsiveness and eliminates parasitic pressure drop between the gas train outlet and turbocharger inlet.

The GTI+ Bi-Fuel system maintains the basic design philosophy of the original GTI product line: Simplicity in design and operation, while maintaining a true zero-pressure “draw through” configuration that maximizes engine safety.

In recent years, the price differential between natural gas and diesel on an energy basis has increased substantially. In the United States, the dynamics of the energy market indicate that this differential will remain.



The GTI+ system is ideal for applications, such as drilling rigs, where the optimal substitution rate needs to be mapped across the genset load range. The Altronic AGV5-2L valve combines the function of a closed-loop, electronic zero governor with that of a substitution control valve, providing a fast responding and reliable fuel control system.

Electronic Gas Train

The GTI+ system utilizes a fully electronic, advanced gas train design. At the heart of this system is a specialized version of the Altronic AGV5 fuel valve. The AGV5 is a microprocessor-based smart valve equipped with a fast-acting voice coil for rapid and accurate response. The AGV5 serves as both the zero governor pressure controller and fuel valve to control the bi-fuel substitution rate across the engine load range. The valve responds in closed-loop control to an electronic pressure signal within the mixer housing, ensuring that the fuel demand at the mixer is satisfied at any given time and eliminating pressure drop associated with pneumatic pressure control systems. This closed-loop control minimizes the effects of pressure drops between the outlet of the gas train and the mixer inlet.

This allows the desired substitution rates to be met, while maintaining the fundamental safety characteristics of a zero pressure draw-through design.

The AGV5 is a proven design that has been utilized as the fuel control device in hundreds of gas engine applications. Its soft-seat poppet is highly tolerant of gas stream contamination and offers fail safe reliable service.



