CONTINENTAL CONTROLS CORPORATION

– A VALVE YOU CAN TRUST –

GSS

GAS SUBSTITUTION SYSTEM

BENEFITS

- Substitutes low-cost natural gas for diesel
- Improved efficiency with natural gas
- Substitution is based on specific fuel consumption (SFC)
- Substitution is available at almost all loads
- Simple installation
- Noise reduction
- Variable fuel control valve for increased AFR authority
- Optional gas flow meter displays totalized fuel savings
- Customizable to accommodate any diesel engine size
- Lower particulate matter in exhaust
- Automatic shutdowns based on vibration, speed, or temperature help protect the engine from damage
- CSA Class 1, Division 2 approved

MAXIMUM SUBSTITUTION OF NATURAL GAS FOR DIESEL FUEL

The GSS harnesses CCC's proven fuel control technologies to substitute gaseous fuels for diesel on traditional diesel engines without any modifications to the engine.

From generator sets to pumps, advanced substitution control is achieved through direct interface with the Engine Control Unit (ECU) for all applications. The variable pressure valve that governs substitution provides highly reliable performance, requiring less intervention over time.

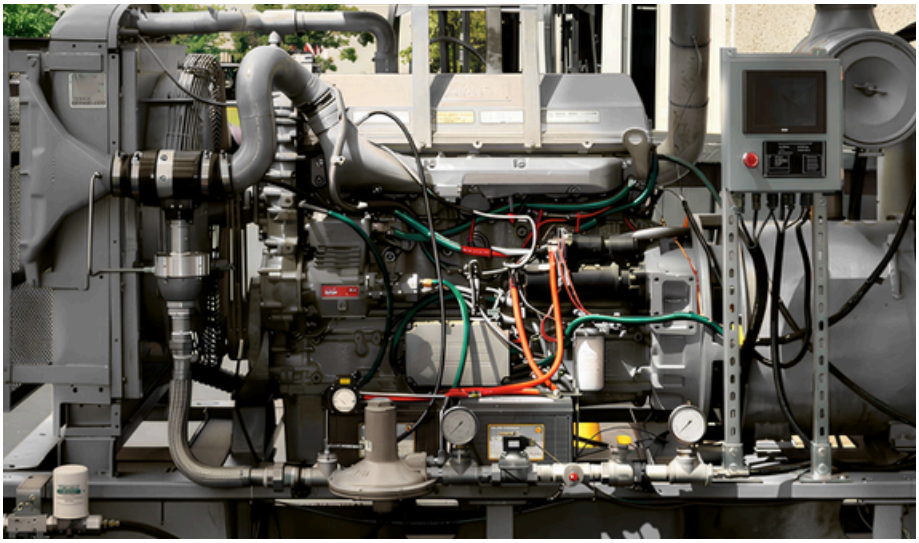
The GSS substitutes the maximum practical amount of natural gas for diesel fuel at nearly any load condition for any application without sacrificing engine performance or power output.

The easy-to-install GSS features compact components that fit on nearly any engine skid, and is simple to operate.

Standard safety features include vibration sensor, high exhaust temperature shutdown (gaseous fuel substitution only – not the engine), overspeed shutdown, and max substitution limits based on measured diesel fuel. The GSS utilizes proven technology that has been field-tested with years of successful performance.

The GSS offers a quick return on investment. After a short ROI period, operators save thousands on fuel every day.

GSS - GAS SUBSTITUTION SYSTEM



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GAS SUBSTITUTION COMPONENTS



GAS MANIFOLD

GSM5 Gas Manifold System

The compact GSS manifold includes a differential pressure regulator, two pressure guages, a ΔP pressure transducer, a manual shut-off valve, and a solenoid shut-off valve, as well as flanges for single or dual bank applications. The use of this unique manifold allows for smooth installation on even the tightest engine skids.



GV2



AGV7

GV2 Gas Valve & AGV7 Advanced Gas Valve

The GV2 is designed to control gaseous fuels for 50–500 hp gas engines, and has an 8-PSID rating.

The AGV7 is designed for gas engines sized 300–750 hp, and is rated for 60 PSI.

Both offer fast variable pressure control and are easily adapted to work with a wide variety of AFR or speed controls. They are compatible with both turbocharged and naturally-aspirated engines.



GSS INTERFACE

GSSI Gas Substitution System Interface

GSSI's advanced technology separates us from the rest. The GSS controller continuously reads the ECU through the CAN bus, determines the maximum substitution and adjusts the rate of natural gas accordingly. The display features engine rpm, horsepower, fuel substitution rate, diesel flow, gas flow, engine load, pressure setpoint, pressure feedback, and ***shows your savings in real time***. Thus, it's the reason we consider it the "brains" of the GSS.



FM50

FM50 Flow Meter

By measuring the gas flow, we are able to optimize the substitution rate. This is key for an optimal and safe substitution rate. The FM50 is a precise and reliable flow meter which accurately measures fuel flow, helping to meter usage and efficiency. It provides consumption history, real-time monitoring and reporting of engine fuel flow. It is robust and designed for easy installation and maintenance.



AFM4 / AFM7

AFM4 / AFM7

GSS mixers are designed to optimize the mixing of air and natural gas while minimizing pressure drop across the mixer. The mixer evenly distributes fuel across the flow profile, resulting in a homogenous air-fuel blend entering the engine. This improved mixer design allows the GSS to reach higher levels of substitution at almost all engine loads with cleaner burning fuel.

Other components include vibration sensor, thermocouple, interface cables, misc. fittings, and hardware.

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ISO 9001 CERTIFIED