

# Alternative Fuels - Fuel Dispensing

## The Application:

Compressed Natural Gas, or CNG, is a leading alternative to traditional fuel for the automotive industry. CNG is used in passenger vehicles, pickup trucks, in transit and on school buses. It can be less expensive than gasoline, and is more environmentally friendly – it reduces the amount of carbon monoxide, carbon dioxide and hydrocarbon vehicle exhaust emissions.

Natural gas is gathered from a pipeline and travels to a connecting compressor station. The gas is elevated to pressures ranging from 2000 psig up to 5000 psig and the resultant CNG is stored in large tanks. The CNG then makes its way to a gas dispenser where it is ready for use in natural gas vehicles.

## The Solution:

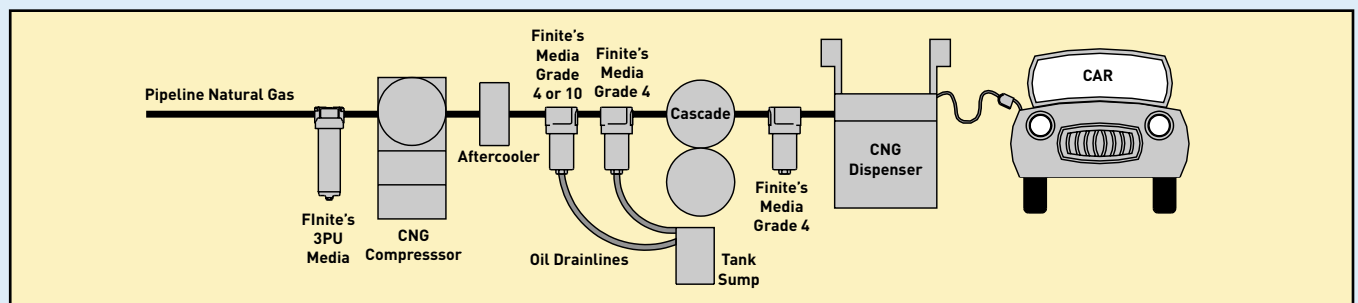
Installing a lower pressure particulate filter before the compressor station will remove pipe scale to prevent compressor damage. Before the gas is transported from storage to the dispenser, pre-filtration of the gas with two-stage coalescing will eliminate solids, oil and water generated during

## The Problem:

CNG is prone to the same types of contamination that is present in traditional fuels – solids that collect during handling, water that condenses in tanks and compressor lube oils that carry over into the CNG stream. During its transport to the dispenser, the CNG will also have contaminants that are generated within the delivery system. This leads to:

- Compressor fouling
- Vehicle fuel system repair
- Liquids in storage tanks
- Gas dispenser replacement

underground transit. For extra protection, a high efficiency coalescer should be placed at the gas dispenser to protect sensitive dispenser metering equipment and prevent oil from making its way into the vehicle.



# Alternative Fuels - On Board Applications

## The Application:

Efficient operation of a CNG vehicle requires protection of the fuel system to prevent premature failing of the fuel injectors and precision components. The gas is dispensed from the filling station to the vehicle fuel tank, finally entering the fuel injection system.

## The Solution:

Filtration is the key to guarding against damaging contaminants that could ruin the fuel system. Installing a coalescer upstream of the high pressure regulator extends the system's life and reduces maintenance costs. A low pressure filter can also be used downstream of the regulator to protect other fuel injection system components.

## The Problem:

Contaminants such as lube oil carryover from compressors, condensed liquids in fuel tanks and solids buildup during gas handling contributes to:

- System downtime
- Component repair and failure
- Increased maintenance costs

