



Amadda Robotic Creation

Energy | Environment | Economy

Dual Fuel Solutions for Diesel Engines

CPCB/CAQMS Approved

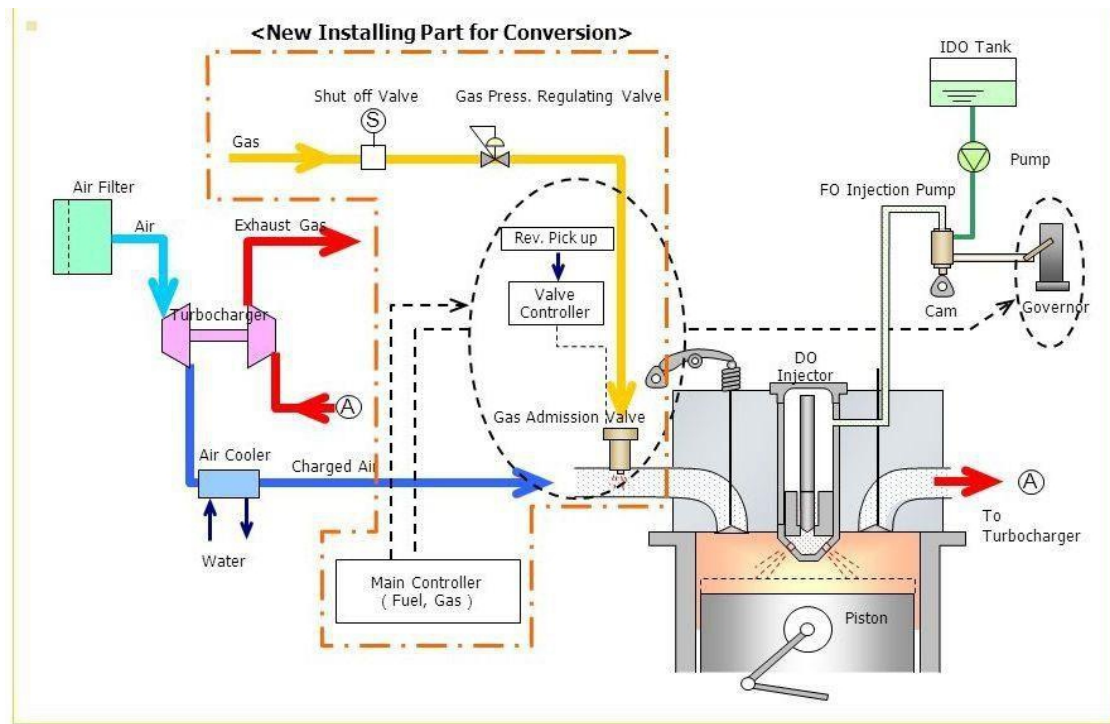
Introducing The All New Gas Gen-Sets With Range From 62.5KVA to 2000KVA



WHAT IS DUAL FUELING?

Dual Fueling is Simultaneous Combustion Of Two Fuels. EIE Dual Fuel Solutions Comprise of Special Kits That Can Be Retrofitted On Existing High Speed Diesel Engines To allow Use Of a mixture Of Methane rich Gas (Most Often Natural gas) With Diesel as Fuel. After Conversion, The Engine Can continue To Operate with Only Diesel Also. However, a 'Gas Only Operations is Not Possible.

Schematic Diagram for Dual Fuel System



During Dual Fuel operation, a reduced quantity of diesel fuel acts as the ignition source for the air-gas mixture. The Methane rich gas mix replaces significant proportion of Diesel to produce equivalent heat energy during combustion in the cylinder. The emission from such engines see an order of improvement. In the current market conditions this also means significant reduction in cost.

The gas used for Dual Fuelling is sourced from either piped gas or from local storage. It is injected into the combustion air stream via a Gas Train consisting of a gas filter, a gas pressure regulator and a solenoid valve. A throttle valve at the end controls the proportion of the gas injected. The gas train is designed to accept input gas at low pressure and deliver it to the engine at slightly negative pressure.

Dual Fuel System delivers fuel gas to the combustion cylinders via the Gas Train into a special Air-Gas Mixer. The mixer is installed on the engine air inlet before the Turbo charger. Combustion is commenced by Diesel as the ignition source and followed by ignition of the Gas.

DUAL FUELCONTROLLER

A state-of-the-art electronic controller continuously monitors critical engine parameters through the operation and transitions seamlessly from 'Dual fuel' to 'diesel only mode if they cross the preset limits. it provides complete safety to the engine while operating in the Dual-fuel mode.

Dual fuel conversion allows the engine to operate on gas ranging upto 70%+ of total fuel consumed. Engines converted to Dual-fuel functionality exhibit diesel-like performance in critical areas such as efficiency, stability and load acceptance.

SYSTEM CHARACTERISTICS

- Available for different sizes of high speed engines
- Simple and easy to operate
- Safe engine Operation
- Exhaust Temperature and Engine Knock Monitoring
- Few moving components
- Seamless switching between operational modes
- Gas controlling proportional to loading (KW)







SYSTEM ADVANTAGES

- Existing assets can be used
- Low Capital cost
- Rapid payback
- Reduced cost of generation
- Cleaner fuel improves emissions
- Improved engine condition monitoring



**Dual Fuel system Available
From 62.5 KVM to 2000 KVA DG set.**

Comparison

 Low CAPEX	 Dual Fuel Engine	 Gas Engine
		
<ul style="list-style-type: none">Low CAPEXOnly DieselFastresponseHigher EmissionsHigh Power	<ul style="list-style-type: none">Quick PaybackFuel FlexibilityDiesel like responseReduced EmissionsSmall Footprint	<ul style="list-style-type: none">High CAPEXOnly GasInflexible LoadingLarge FootprintHigh O&M costs

OUR SERVICES:

- Online ETP/STP/ZLD Monitoring System
- Online Stack Monitoring
- Ambient Air Quality
- Annual Maintenance Services
- Online Ground Water Management
- Annual CPCB/SPCB Connectivity



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