Dual Fuel Generator Sets

- Low emission natural gas operation
- Low life cycle cost – medium speed 900 rpm
- Robust diesel engine design
- Exclusive Fairbanks Morse Engine
  - Enviro-Design® Micro Diesel Pilot

Opposed Piston Story

The Opposed Piston engine was developed in the 1930s for locomotive power, but was initially used to power submarines in World War II. Fairbanks Morse has manufactured thousands of these engines for marine power, electric power plants, and numerous mechanical drive applications. Today, the low emissions Enviro-Design® dual fuel model is the model of choice for many power plants.

Benefits & Features

- 8-1/8" bore & 10" stroke
- Dual Fuel – 99% natural gas & 1% diesel pilot
- No spark plugs – diesel ignition of the natural gas
- Welded steel block – shock qualified
- Factory-direct support & service
- Two-cycle operation – no cylinder head maintenance
- Operate on 100% diesel if gas supply is interrupted
- Capable of 50% load step
- Fast starting – accept load within 10-15 seconds

Standard Equipment

- Engine turbochargers & intercoolers
- Free standing control panel & motor control center
- Cooling tower & pump
- Intake & exhaust silencers
- Filters – lube oil, fuel oil, combustion air
- Heat exchangers
- Pumps & motors
- Starting air system

www.fairbanksmorse.com
## Opposed Piston DF Ratings

<table>
<thead>
<tr>
<th>Cylinders</th>
<th>RPM</th>
<th>Turbocharged Gross kWe</th>
<th>Turbocharged Bhp</th>
<th>Turbo-Blower Gross kWe</th>
<th>Turbo-Blower Bhp</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>900</td>
<td>1580</td>
<td>2205</td>
<td>1506</td>
<td>2100</td>
</tr>
<tr>
<td>9</td>
<td>900</td>
<td>2370</td>
<td>3308</td>
<td>2260</td>
<td>3150</td>
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<tr>
<td>12</td>
<td>900</td>
<td>3165</td>
<td>4410</td>
<td>3013</td>
<td>4200</td>
</tr>
</tbody>
</table>

Data at 100% load. Dimensions in inches. Dry genset weight.

## Performance Data – Dual Fuel Operation

<table>
<thead>
<tr>
<th>Engine Configuration</th>
<th>Natural Gas Heat Rate Btu/bhp-hr</th>
<th>Diesel Heat Rate Btu/bhp-hr</th>
<th>Total Heat Rate Btu/bhp-hr</th>
<th>NOx g/bhp-hr</th>
<th>CO g/bhp-hr</th>
<th>THC g/bhp-hr</th>
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</thead>
<tbody>
<tr>
<td>Turbocharged</td>
<td>6157</td>
<td>93</td>
<td>6250</td>
<td>1.0</td>
<td>3.4</td>
<td>6</td>
</tr>
<tr>
<td>Turbo-Blower</td>
<td>6255</td>
<td>95</td>
<td>6350</td>
<td>1.0</td>
<td>3.4</td>
<td>6</td>
</tr>
</tbody>
</table>

Data at 100% load. Diesel operation heat rate is 0.350 lb/bhp-hr. THC: Total Hydrocarbons.

## Optional Equipment

- Radiator cooling
- Black start capabilities
- Gas compressor (70 psig required)
- Battery, rack & charger
- Switchgear
- Maintenance platform
- Emission reduction equipment
- Long-term service/maintenance agreement

## Typical Dimensions

<table>
<thead>
<tr>
<th>Cylinders</th>
<th>A</th>
<th>B</th>
<th>Tons</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>250</td>
<td>90</td>
<td>32</td>
</tr>
<tr>
<td>9</td>
<td>300</td>
<td>110</td>
<td>39</td>
</tr>
<tr>
<td>12</td>
<td>366</td>
<td>130</td>
<td>45</td>
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</tbody>
</table>

Dimensions in inches. Dry genset weight.