

# PORT HAMILTON REFINING AND TRANSPORTATION, LLLP

## Equipment for Sale: No. 4 Gas Turbine Unit

### Summary:

Gas Turbine No. 4 (GT-4) is a General Electric Model M enclosed, packaged-turbine that reliably supplied 13kV electricity to the refinery electrical grid and recovered waste heat from the turbines to generate steam. The 17 MW Frame 5 HRSG has a steam generator.

The inlet and compressor casing are made of cast iron while the compressor discharge and turbine casings are made of nodular iron. The compressor stator blades are made of stainless-steel alloys.

The turbine is a single-shaft type with axial flow. The unit is designed to operate in single or combined cycle and is equipped with thrust bearings, active and inactive, to maintain the rotor stator axial position. The unit has a folded back combustion chamber on a single base mount. This configuration provides the maximum design for the mixing zones for turbine fuel and air.

GT-4 runs 22,380 HP @ 5100 RPM. The GT is governor controlled by Mark IV Speedtronic Analog & Digital Systems Normal operating condition (NOC) proved exhaust temperature of 976 deg F with compress discharge pressure of 120 psig and zero to 5100 rpm (overspeed trip set point is 110% of rated speed).

### Generator

Metallurgy: Copper stationary windings with copper and stainless-steel wound rotor and rotor slots

60 Hz, three (3) Phase, WYE connected, two pole, air cooled with a Phase Rotation of Phase A, B, and C.

Generator Rating: 17 MW  
Generator Amperes: 864

Exciter Voltage: 250  
Exciter Amperes: 194

Average Generator VAR (Volt-Amperes Reactive) Power Loading: 8 MVAR  
Average Power Factor: 0.80 to 0.90 running on the lag side.



**No. 4 Gas Turbine**

**FOR MORE INFORMATION**

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