

Equipment for Sale

53 MW Combined Heat & Power (CHP) Plant

“Using our global reach our equipment solution team provides quality rotating equipment, at lower capital cost so you achieve improved returns on your investment.”

Wood Group GTS is a leading independent provider of services and solutions for clients in the power, oil & gas and renewable energy markets. Worldwide, these services include; power plant engineering, procurement and construction, facility operations & maintenance, repair & overhaul of gas, wind and steam turbines, pumps, compressors and other high-speed rotating equipment.

For additional information and photos please contact:

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Equipment Information	Rating
Plant Performances	
Net Output: (ISO Conditions, Natural Gas Full Condensing)	53MW
Net Heatrate: (ISO Conditions, Natural Gas, Full Condensing)	1900 Kcal/ kWhr
Overall Thermal Efficiency	60%
Turbine	
Turbine Manufacturer	Nuovo Pignone (G.E.)
Turbine Type / Model	Fr MS 6001 (B) 6541
Date of Manufacture	1994
Power Rating ISO (MW)	39MW
Efficiency (%)	31.9%
Fuel Configuration	Nat Gas / Distillate Oil (but operated on Nat Gas since new)
Emissions: Steam Injection	Yes, 1.1610 Steam/Fuel
Mounting	Skid Base
Acoustic Enclosure	Included
Start System	Electric Motor + Torque Converter
Total Starts (Package)	803
Total Package Operating Hours	110,392
Date of last Overhaul /Inspection	2006
Operating Hours Since Major Overhaul	23,330
Date of Last HGP (Hot Gas Path) Inspection	March 2009 – 108,541 Operating Hours. (Ceramic Coating Upgrade).
Operating Hours Since last HGP Inspection	1,851
Maintenance Responsibility	GE
Manuals / Drawings	Included (English)
Spare Parts	Included

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Special Tooling	Yes
Approx Dimensions (Package)	8740.4x4000mm
Approx Weight (Package)	42000+68000+41659kg
Main Gearbox	
Manufacturer	Flender-Graffenstaden
Date of Manufacture	1994
Type	TRL 65 CV
RPM	Input 5113.6, Output 3000
Running Hours	110392
Date of Last Inspection	2007
Turbine Generator	
Manufacturer	GEC ALSTHOM
Date of Manufacture	1993 (New Stator Replaced in 2002) + Repaired Spare
Power Output kVA	46000
RPM	3000
Hertz	50
Insulation Class	F
Power Factor	0.85
kW	39100
Amps	2414
Volts	11,000
Cooling System	CACW
Insulation Check	November 2006
Electrical Equipment	
Motor Control Centre	GEC ALSTOHM AKG 400 L18
Generator Control Panel	ABB
Synchronising	ABB
Voltage Regulation	
Balance of Plant	
Turbine Control System	Mark V
Air Intake / Filtration System	Included
Exhaust Silencer / System	
Oil Cooler	Included (water cooled)
Fire & Gas System	Ses-Enser
Fire & Gas Detectors	Ses-Enser
Auxiliary Boiler	
Manufacturer	European Manufacture
Date of Manufacture	2007
Capacity	60 t/h with Economiser and auxiliary combustion system
Steam Turbine	
Manufacturer	European Manufacture
Date of Manufacture	1993/4
Model / Type	CDI 635 R
Power Rating	18700 kw
Operating Hours	108,906
HP Inlet Pressure	68.5 bar

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Flow Temperature	Unstated – measured 64.5 t/h in winter 498 Deg C												
<u>MP extraction : (12 bar before change)</u> Pressure Flow Temperature	5 14.5 bar Unstated 315 Deg C												
<u>LP Inlet</u> Pressure Flow Temperature	Unstated - operated between 6.0 and 6.4 bar Unstated - 13.5 ton/hr Unstated - operated at 280 Deg C												
Steam Turbine Generator													
Manufacturer	European Manufacture												
Year of Manufacture	1993												
Power Output Kva	23,000												
Volts	11,000												
Cooling System	CACW												
Water Treatment Plant	Reverse Osmosis plus double resin demi line with final mixed bed												
Gas Compressors x 2	Nuovo Pignone 2HM/1 – Reciprocating, 11 - 19.5 barg												
Air Compressor x 3	2 x INGERSOLL-RAND SSR M55/75 + 1 x SSR M22												
Transformers x 4	<table style="border: none;"> <tr> <td>TP</td> <td>220/11/11KV</td> <td>75/50/25 MVA</td> </tr> <tr> <td>TA1/2</td> <td>11/6 KV</td> <td>4.5MVA</td> </tr> <tr> <td>TD1/2</td> <td>6/0.4 KV</td> <td>1.6 MVA</td> </tr> <tr> <td>TD3</td> <td>22/0.4 KV</td> <td>1 MVA</td> </tr> </table>	TP	220/11/11KV	75/50/25 MVA	TA1/2	11/6 KV	4.5MVA	TD1/2	6/0.4 KV	1.6 MVA	TD3	22/0.4 KV	1 MVA
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GE Frame 5 package

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