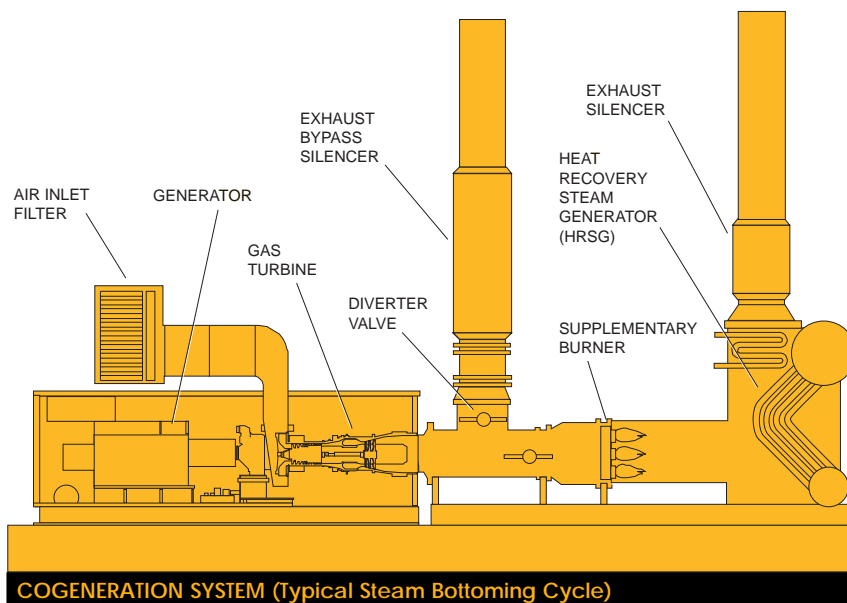


ASSUMPTIONS

	Metric	English
Site Conditions		
Elevation	0 m	0 ft
Temperature	15°C	59°F
Fuel	Natural Gas	
Load	100%	
Inlet Pressure Loss, H ₂ O	75 mm	3 in.
Exhaust Pressure Loss, H ₂ O	175 mm	7 in.

HRSG / Steam Data

Steam Pressure	8.6 bar gauge	125 psig
Steam Conditions	Dry and Saturated	
Pinch Temperature	17°C	30°F
Condensate Return	49°C	120°F
Boiler Inlet	110°C	230°F
Economizer Approach	22°C	40°F



Saturn 20 Centaur 40 Centaur 50 Mercury 50 Taurus 60 Taurus 70 Mars 90 Mars 100 Titan 130

SPECIFIC SITE PERFORMANCE

Electrical Output, kWe	1174	3419	4483	4072	5071	7352	9216	10 439	13 197
Exhaust Temperature, °C	511	441	513	351	489	489	468	491	493
	952	826	956	663	912	913	875	915	920
Turbine Fuel Input, GJ/hr	17.8	45.1	56.0	37.5	61.3	79.5	106.0	117.7	145.0
	MMBtu/hr	16.8	42.7	53.1	35.5	58.1	75.4	100.5	137.4
Exhaust Mass Flow, thousand kg/hr	23.4	66.5	68.2	60.6	78.9	96.3	143.5	149.3	178.3
	thousand lb/hr	51.5	146.6	150.3	133.6	173.9	212.3	(316.4)	393.0

EXHAUST HEAT AVAILABLE

Heat Credit, GJ/hr	12.4	30.3	36.3	21.7	39.9	48.8	69.5	75.8	91.0
	MMBtu/hr	11.7	28.7	34.4	20.6	37.8	46.2	65.8	86.3
Net System Efficiency, %	94	95	94	97	95	95	97	96	96

PROCESS STEAM PRODUCTION (UNFIRED)

Steam Output, tonnes/hr	3.7	8.1	10.9	4.6	11.6	14.2	19.6	22.1	26.6
	thousand lb/hr	8.2	17.9	24.0	10.2	25.5	31.2	43.1	58.6
Net System Efficiency, %	72	69	74	68	73	75	74	75	75

PROCESS STEAM PRODUCTION WITH SUPPLEMENTAL FIRING, 760°C (1400°F)

Steam Output, tonnes/hr	6.9	19.6	20.0	17.9	23.2	28.3	42.2	43.9	52.4
	thousand lb/hr	15.1	43.1	44.1	39.4	51.1	62.4	93.0	96.7
Additional Fuel to Burner, GJ/hr	6.8	24.6	19.7	28.5	24.9	30.4	48.7	46.9	55.5
	MMBtu/hr	6.4	23.3	18.6	27.0	23.6	28.8	46.2	44.5
Net System Efficiency, %	82	83	83	85	83	84	85	85	84

PROCESS STEAM PRODUCTION WITH SUPPLEMENTAL FIRING, 1538°C (2800°F)

Steam Output, tonnes/hr	16.8	48.0	49.1	43.9	56.9	69.4	103.6	107.7	128.5
	thousand lb/hr	37.1	105.9	108.3	96.7	125.4	153.1	228.3	237.3
Additional Fuel to Burner, GJ/hr	29.0	88.4	84.5	87.2	100.2	122.2	186.0	189.3	225.5
	MMBtu/hr	27.5	83.8	80.1	82.7	94.9	115.9	176.2	179.4
Net System Efficiency, %	92	92	92	93	93	93	93	93	93

- NOTES:**
- Alternative steam pressures and temperatures available upon request.
 - Minimum stack temperature with:
Gas fuel = 135°C (275°F)
Liquid fuel = 163°C (325°F)

CONVERSION FACTORS FOR CHILLING APPLICATIONS:

Older Mechanical Chiller: 0.8 kW/hr = 1 Ton of Refrigeration
 Newer Mechanical Chiller: 0.6 kW/hr = 1 Ton of Refrigeration
 Single-Effect Absorption Chiller: 18.7 lb/hr of Steam = 1 Ton of Refrigeration
 Double-Effect Absorption Chiller: 9.9 lb/hr of Steam = 1 Ton of Refrigeration

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