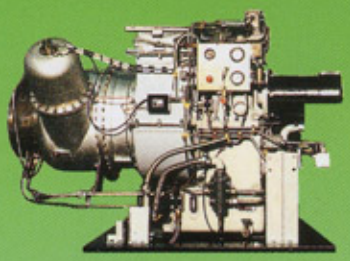
Kawasaki co-generation system

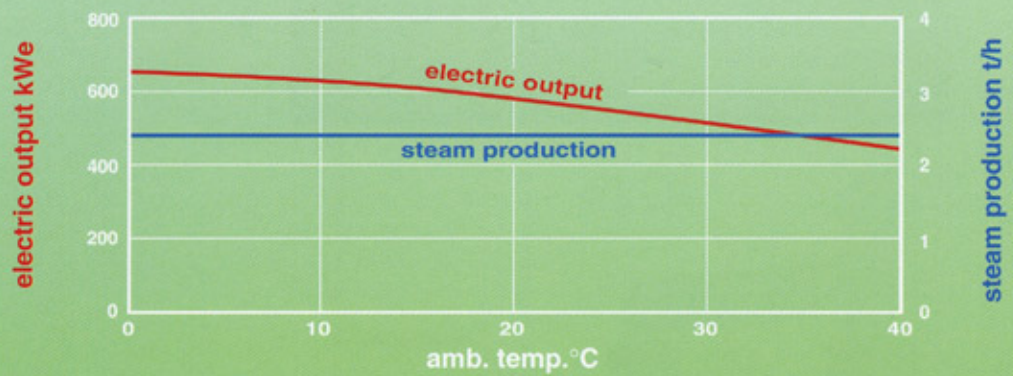


GPC06

Electric Power 0.6MWe, Steam 3t/h

- High efficiency : electric 19%, overall 73%
- Low emissions : NOx 50ppmv, CO 80ppmv (O_2=15%, wet)
- High reliability & easy maintenance

Nominal Performance (Gas fuel)



amb.temp.	electric output	fuel consumption	steam production	electrical efficiency	heat recovery efficiency	overall efficiency
°C (°F)	kWe	kJ/s	t/h (kJ/s)	%	%	%
0 (32)	650	3,386	2.43 (1,702)	19.2	50.3	69.5
15 (59)	611	3,231	2.48 (1,737)	18.9	53.8	72.7
30 (86)	509	2,935	2.41 (1,688)	17.3	57.5	74.8
40 (104)	443	2,747	2.36 (1,653)	16.1	60.2	76.3

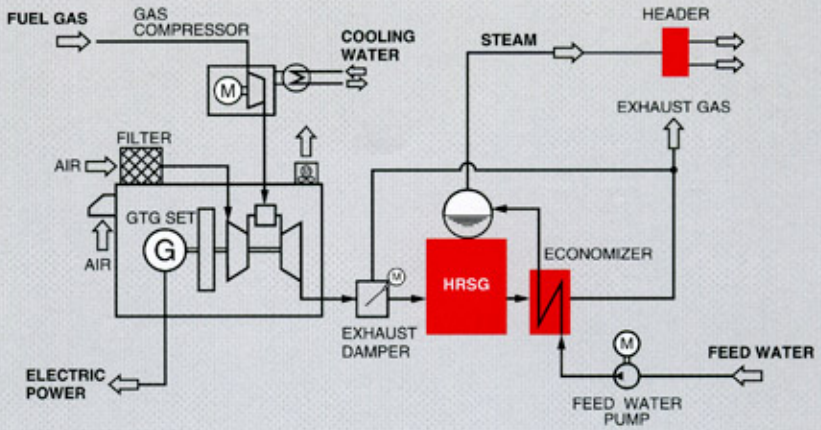
NOTE)

1. Natural gas (LHV=9,940 kcal/Nm3),
   Gas pressure at the inlet of gas turbine : 1.27MPaG
2. Sea level, Intake / Exhaust pressure loss : 100/250 mmAq
3. Generator efficiency : 93%
4. Feed water : 60 °C, Steam pressure / temp. : 0.93MPa abs. / saturated
5. No water / steam injection

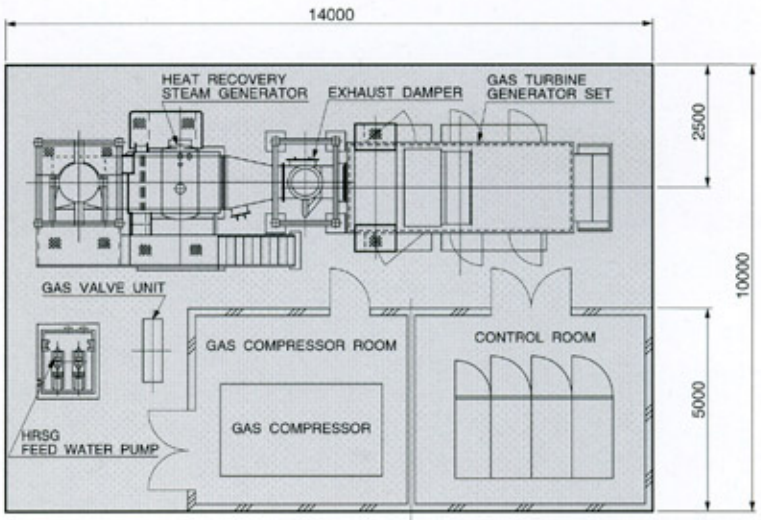
Kawasaki

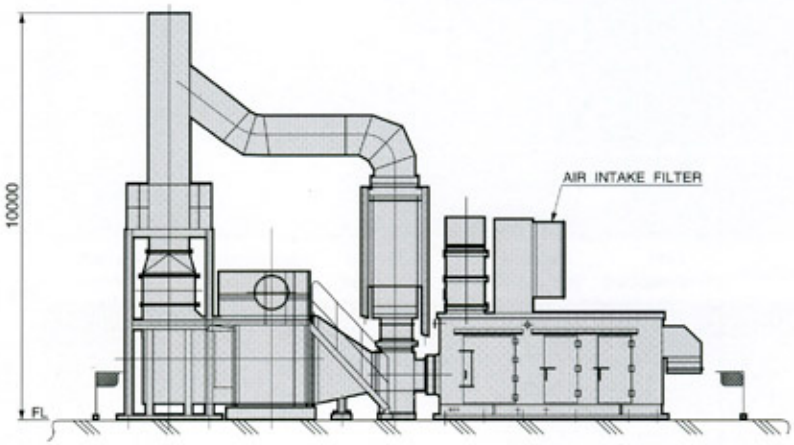
CO-GENERATION SYSTEM

Typical system flow (IN CASE OF GAS FUEL)



Typical layout (Unit:mm)





Kawasaki

KAWASAKI HEAVY INDUSTRIES, LTD.
Industrial Gas Turbine Division
1-1, Kawasaki-cho, Akashi-city
673-8666, Japan
TEL:+81-78-921-1335
FAX:+81-78-913-3344 / 923-3780

KAWASAKI GAS TURBINE EUROPE GmbH (KGE)
Max-Planck-Strasse 21A
61381 Friedrichsdorf, Germany
TEL:+49-6172-7363-0
FAX:+49-6172-7363-55