

## GENERAL DESCRIPTION troveo ID PO-108 - W6

### STORED, SECOND-HAND 50 Hz, 45 MW SGT-800 GAS TURBINE GENERATOR SET

**Type:**  
**Gas Turbine Power Train**

**Location:**  
**Western Europe, Stored in Warehouse**



This offer comprises one of two SIEMENS SGT-800 turbines generator sets for sale. Both sets have been used for energy generation in Western Europe and were dismantled and packed professionally by SIEMENS in March 2022. Both sets are in excellent condition and ready for immediate transport on as being mounted on steel frames and stored in containers. The nearest overseas ports are Hamburg or Amsterdam.

In particular, this 45 MWe GT-gen was regularly maintained according to SIEMENS standards. Last recorded operating hour was approx. 112,000 EOH. Documents of the full maintenance history are available; no major incidents were reported.

This offer is a SGT-800 Classic Package, i.e. the GT and gearbox are placed on a single base frame. The mechanical auxiliary systems are mounted on a separate skid placed close to the gas turbine inside the enclosure. This way, the set can be easily transported and installed at a new site.

The asking price for this just 14 years old power generation set including many unused spare parts is EURO 4.5 million, FOB nearest overseas port.

## Offering

<b>item / type / layout</b>	gas turbine generator set with SIEMENS SGT-800
<b>typical usage</b>	flexible loads possible including base load operation in a CCGT
<b>special features</b>	big spare parts storage, main parts all by OEM SIEMENS
<b>status</b>	decommissioned in March/April 2022, 112.000 EOH

<b>availability for relocation</b>	immediately ready form transport; units has been professionally dismantled by SIEMENS and are well stored indoor in a warehouse in Germany
<b>asking prices</b>	to be negotiated – quotes are welcome purchase price is “as it is and where it is”, packed & delivered from the warehouse FOB from ports in Germany or Poland
<b>new build cost</b> (for comparison)	Euro 24 million approx. (for entire new plant as per Western Europe model case)

## Key Figures

<b>main fuel type</b>	unit was operated with natural gas (conversion to dual fuel possible: liquid and gas fuels)
<b>electrical output</b>	45 MW <sub>e</sub> gross capacity (approx.) (power upgrade to 50 MW <sub>e</sub> possible)
<b>thermal output</b>	not included (however, this set may be operated in CHP power plant, too)
<b>efficiency</b>	39,4 % in simple cycle mode
<b>flue gas filter technology (daily average)</b>	denitrification NO <sub>x</sub> < 15 ppmvd
<b>grid connection</b>	50 Hz, variable voltage levels possible (subject to step-up power transformer; not included)
<b>unit size</b>	550 m <sup>2</sup> (approx., indoor space required)
<b>year of commissioning / year of last retrofit</b>	2008 / -
<b>last overhaul</b>	Level B inspection at 100.000 EOH (full track record of maintenance reports available)
<b>major upgrades / events</b>	none / no major incidents reported

## Operating Figures

<b>max. generation capacity</b>	45 MW <sub>e</sub> (approx., at full load)
<b>fuel quality</b>	natural gas (calorific value is usually 12 kilowatt hours per cubic meter)
<b>fuel consumption at full load</b>	heat rate 9,147 kJ/kWh (8,670 Btu/kWh)
<b>type of cooling</b>	air cooling

## Technical Figures of Main Components

This power unit for sale comprises a 50 MW gas turbine, an approx. 50 MVA generator with a gear box, the original control system and many spare parts:

<b>gas turbine</b>	<b>SIEMENS</b> , type SGT-800 drive capacity: 50 MW gross efficiency: 39.4 % turbine combustion power at full load: 135 MJ/s turbine speed: 6,600 rpm exhaust mass flow: 124.7 kg/s exhaust temperature: 560 °C GT weight 40 tons incl. aux. equipment
<b>gear box</b>	<b>Flender Graffenstaden (Germany)</b> , type: TX112/ 4C
<b>power generator</b>	<b>SIEMENS</b> , type: SGEN5-100A-4P approx. 50 MVA four-pole, three-phase synchronous generator power factor: 1.0 output voltage: 11.5 kV generator speed: 1,500 rpm air cooled
<b>control and communication system</b>	Siemens PCS-7 – for main system ABB – for generator exciter

## Additional Information

**spare parts**

all spare parts available as kept by the former operator  
 some spare parts are included in this offer  
 other, main spare parts such as hot-pass blades and vanes of stages 1,2,3 (used), new combustion chamber, new bearing set for gearbox, new bearing set for generator and special, large tools for opening of turbine can be bought separately

**documentation**

all equipment documentation  
 all operating instructions  
 all maintenance reports

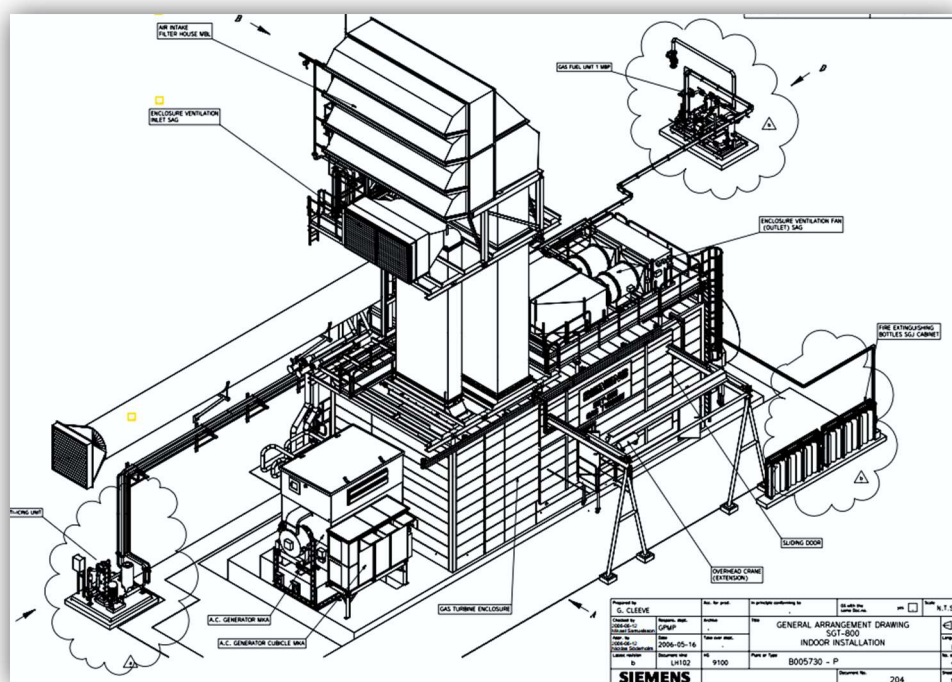
**marketing service fee**

will be paid by the seller

**dismantling of unit**

ready for immediate transport – entire unit is already dismantled and packed

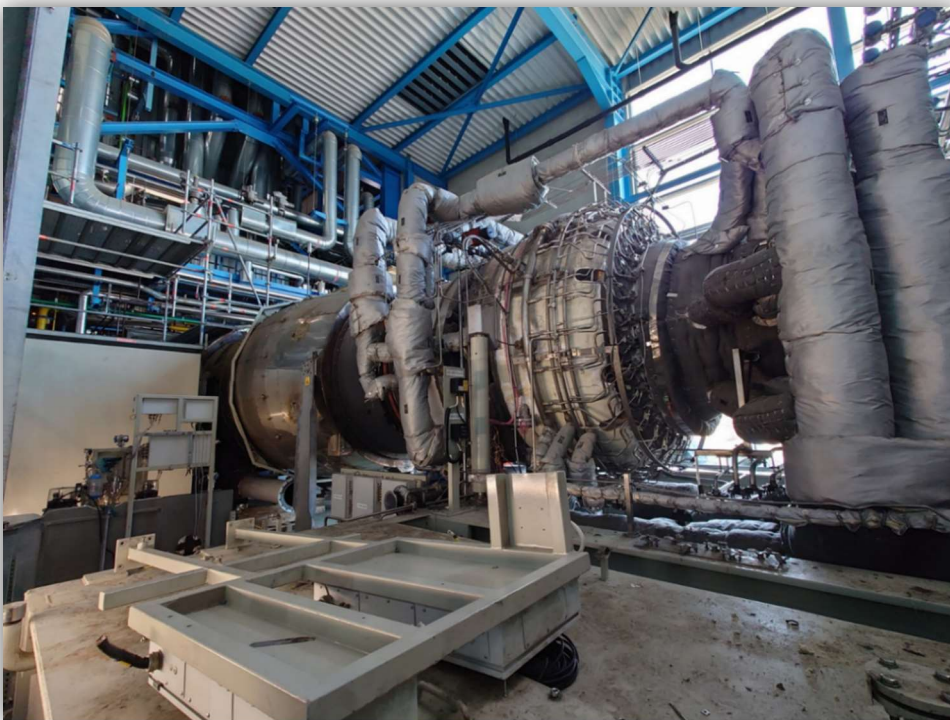
## Impressions



Gas Unit – indoor installation set-up



Gas Unit – Side view of the generator and gas-turbine canopy in the back

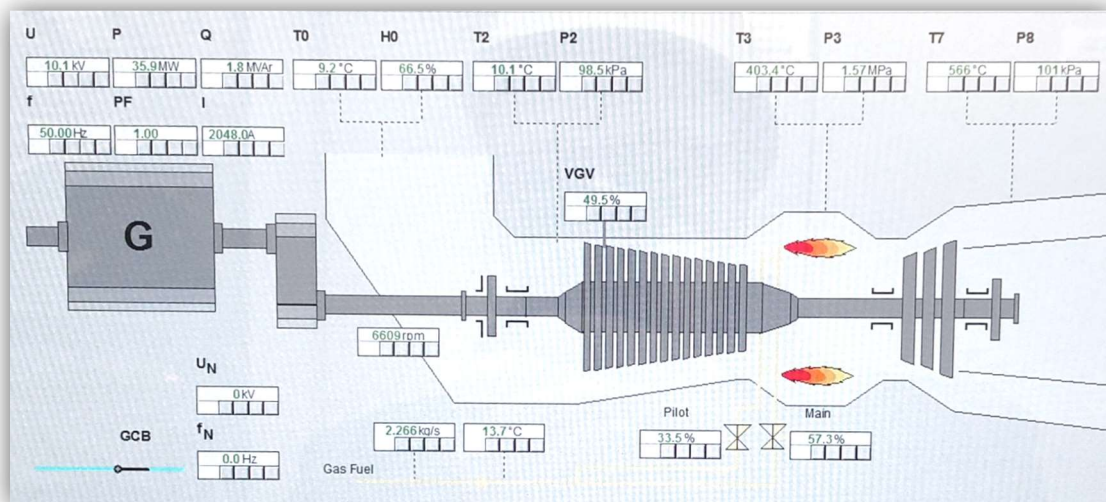


Gas Turbine – Side view of the gas turbine





Gas Turbine – canopy side view and auxiliary equipment



GT-Gen Setup – as monitor image of the SIEMENS PCS-7 control system



Gas Turbine Gen Set – unused spare parts



Gas turbine – SIEMENS experts conducting dismantling works

**Disclaimer:**

Although the statements and technical information contained herein are believed to be materially accurate, no representation or warranty is given as to the accuracy of any of the information provided.

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