

ACE Group

2 x 42,5 MW Gas Turbines

Proposal for 2 x 42,5 MW second hand Gas Turbines

These Gas Turbines are actually installed in France, and operated by Electricité de France (E.D.F.)
The Manufacturer of these Gas Turbines is C.E.M. (Alstom) who is still maintaining the machinery
The working hours is: 50.000 Hours (normal duty is 150.000 hours without extra maintenance)

1° Technical specification

- Power absorbed by compressor: 88,2 MW
- Power at alternator coupling: 49,2 MW
- Theoretical electrical power : 42,1 MW
- Alternator power : 50 MVA
- Rotation Speed : 3000 rpm
- Thermal efficiency (EdF Data) 45%
- Total operation hours: 50.000 hours
- Manufacturer advised expected life 150.000 hours

2° Equipment to be delivered (For each gas turbine)

- one axial gas turbine single flow: 70 Tons
- One vertical boiler 43 tons
- One alternator 50 Hz, 50 MVA, 2800 Amperes with air cooling system
- One axial air pressure device, 105 Tons , 7,85 bars
- One starter motor (exitator) GT 850/380
- One varivolt 800 KVA Input tension 5500 volts, output tension 600 volts
- One main transformer 10,3KV/20 KV Power 500 MVA (new)
- One safety power generating set 1550 KW output current 5500 volts, with air cooling system
- One new control panel.

Both units will be refurbished by Alstom before shipping

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Time schedule:

- Turbine overhaul/refurbishment : 6 weeks
- Dismantling/ packing : 6 weeks
- Transport to site : 6 weeks
- Re construction on site : 14 weeks
- Re starts and controls: 4 weeks
- Subject to completion by the client of the required civil work, which should be carried out simultaneously with the shipping and installation of the turbines.

The civil work guide line drawings for the plant construction and building will be also provided.

Civil work should be executed in 9 months maximum

- Main building: 100 m length, 30 m wide, 20 m High
- Dedicated foundations for turbines and other equipment
- Air intake filtering facility
- Discharge outlets and Nox fumes extractors

As no traditional cooling system is required, no major water treatment feed is necessary.

The transfer steps are as follows:

- Planning, marking and referencing
- Insulation removal
- Dismantling
- Refurbishment
- Manufacturing of all new control/command boards
- Packing
- Transportation up to site
- Re mounting process under manufacturer supervision
- All re connections
- Re commissioning and training process.

Are excluded: local civil work, custom clearance and duties, erection, connection with gas network, connection with the electricity network.

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limite les risques de passage de mazout vers l'eau d'alimentation du générateur de vapeur en cas de fuite à l'intérieur du réchauffeur.

Cette installation, livrée clefs en main par C.G.C.D., emprunte de la vapeur soit au soutirage 7 des tranches 3 ou 4, soit à la chaudière auxiliaire n° 3, qui parcourt ensuite trois échangeurs en parallèle dans lesquels elle

cède ses calories à l'eau de réchauffage. La vapeur condensée, reprise par deux pompes de reprise des condensats en parallèle, est renvoyée vers le réchauffeur 5 des tranches 3 ou 4, ou vers la chaudière auxiliaire.

Deux pompes de circulation refoulent en parallèle l'eau chaude vers les réchauffeurs à mazout des 4 tranches.

Groupe à gaz

Dispositions d'ensemble

Groupe à gaz

