

## 21MW Thermodyn® condensing type steam turbine

Ref : 2013-404

### Equipment for sale

21MW turbogenerator including

- MP condensing type steam turbine Thermodyn® 8.10MC8E
- Gearbox Flender Graffenstaden® TX70/3X
- Generator Jeumont® SAT110.4
- Lube oil skid 2800l
- Woodward® control system, Bentley-Nevada® vibration monitor & electronic AVR
- Motor Control Switchboard
- Step-up transformer 63kV
- Several BOP equipment

### Generator data

Manufacturer \_\_\_\_\_ Jeumont®  
 Model \_\_\_\_\_ SAT 110.4-210-4  
 Speed \_\_\_\_\_ 1500 rpm  
 Power \_\_\_\_\_ 26 163 kVA  
 Voltage \_\_\_\_\_ 5 500V  
 Current \_\_\_\_\_ 2 747A  
 Frequency \_\_\_\_\_ 50Hz  
 Connection \_\_\_\_\_ ~3Y  
 Cooling \_\_\_\_\_ Air flow through water heat exchanger

### Steam turbine data

#### Rating

Type \_\_\_\_\_ Condensing w/ one bleed port  
 Manufacturer \_\_\_\_\_ Thermodyn®  
 Model \_\_\_\_\_ 8.10MC8E  
 Year \_\_\_\_\_ 1994  
 Power \_\_\_\_\_ 21 616 kW  
 Speed \_\_\_\_\_ 4 540 rpm  
 Inlet pressure \_\_\_\_\_ 25 bars max.  
 Inlet temperature \_\_\_\_\_ 330°C  
 Exhaust pressure \_\_\_\_\_ 98 mbar

#### Operation cases

Case	AA	BB	CC
<b>Inlet press. (bars)</b>	24	24	24
<b>Inlet temp. (°C)</b>	330	330	330
<b>Inlet flow (T/h)</b>	100	100	8
<b>Bleed press. (bars)</b>	-	4.5	4.5
<b>Bleed flow (T/h)</b>	-	95	-92 injected
<b>Exhaust press. (mbars)</b>	78	46	78
<b>Exhaust flow (T/h)</b>	100	5	100
<b>ST Power (kW)</b>	21 370	8 050	14 180
<b>GEN Power (kW)</b>	20 930	7 550	13 620



### Shipment data

Location \_\_\_\_\_ France

Dimensions (LxWxH / Weight)

Steam turbine \_\_\_\_\_ 7200x4500x3500 / 40T  
 Generator \_\_\_\_\_ 5600x4100x2500 / 54T  
 Gearbox \_\_\_\_\_ 2200x2800x1900 / 10T  
 Transformer \_\_\_\_\_ 5500x5600x4000 / 41T  
 Other \_\_\_\_\_ 2x 40'' open top containers

### Sales conditions

Option 1 \_\_\_\_\_ As-is / Where-is  
 Option 2 \_\_\_\_\_ Refurbished FCA, France / 6 months warranty  
 Option 3 \_\_\_\_\_ Refurbished and installed / 12 months warranty  
 Price \_\_\_\_\_ According to option

### Contact

Serge Jaumain  
 BOP Engineering Dept.  
 Direct Ph: +33 559 72 74 81  
 Email : [serge.jaumain@gemco.fr](mailto:serge.jaumain@gemco.fr)