

Steam turbine unit 3kW



DESCRIPTION

- The steam turbine unit is delivered complete with instrumentation, and with technical and instruction manuals
- Designed and manufactured to industrial standards.
- Completely equipped for safety.
- Components are connected in a closed circuit.
- This unit has been designed for different levels and fields of study.

SUGGESTED APPLICATIONS

Running of a thermoelectric plant

- Steam heater
- Steam turbine
- Productivity

Measurements devices

- Temperature
- Level
- Pressure
- Flow rate

Safety devices

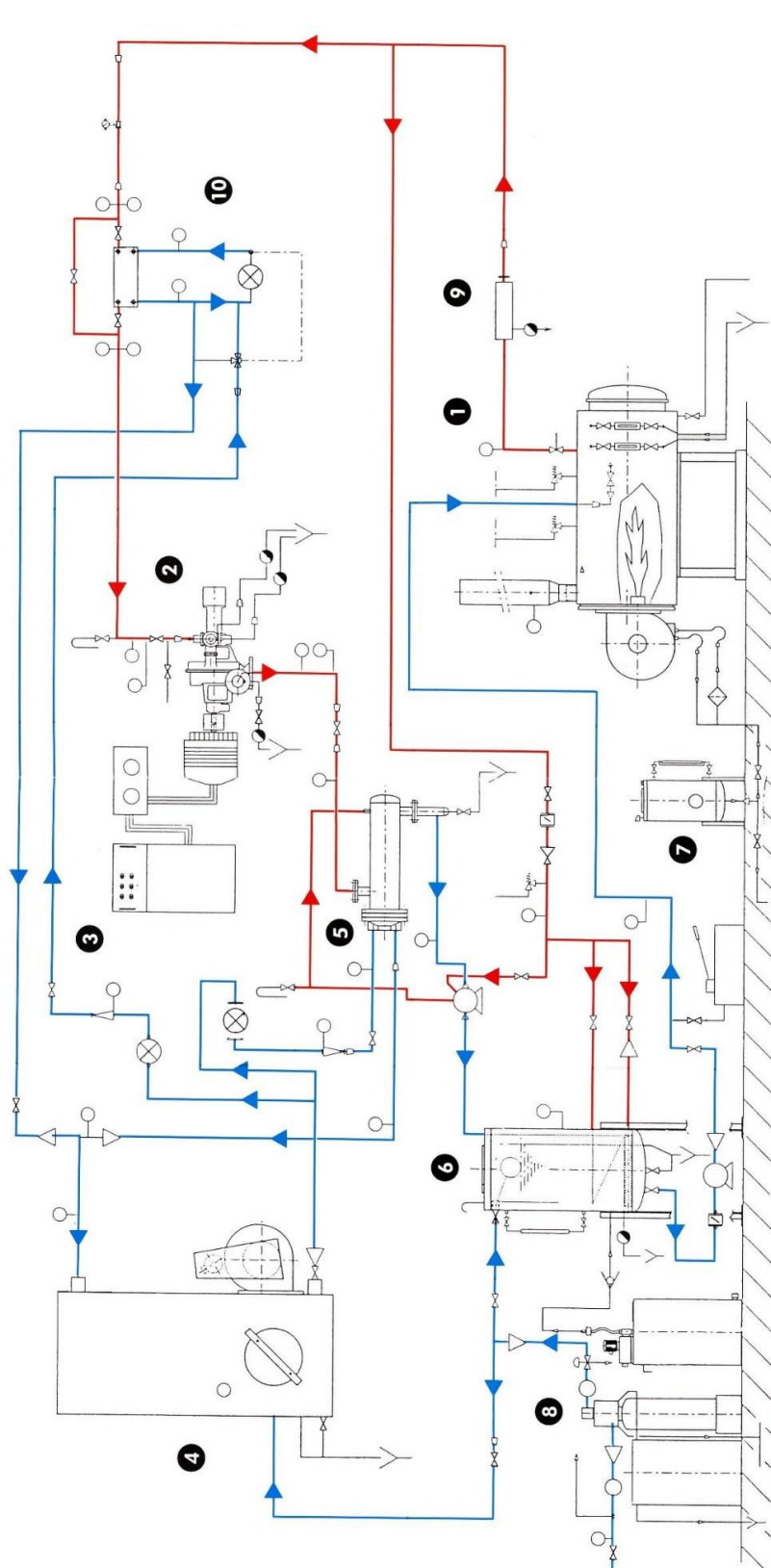
Heat exchangers

- Steam - water
- Electric heat - water
- Combustion - water
- Water - air

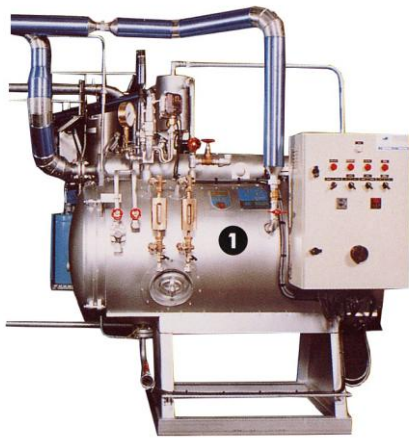
water treatment

TVT 3kW

SCHEMATIC DIAGRAM



TVT 3kW



1. Steam heater 134 000kcal/h

Heating surface 4.1m²
Maximum temperature 192°C
Steam production 210kg/h
Maximum pressure 12 bars (175 psi)
Gas oil burner
Temperature, flow rate, level and pressure sensors.

2. Steam use unit 3600 rpm

Steam turbine atmospheric or vacuum pressure exhaust 3kW
Vortex flow meter
Temperature pressure and safety sensors.

3. Dynamometer 4.6 kVA

Directly connected to the turbine
Data
Speed of rotation, torque, Ammeter, Voltmeter
Turbine brake
Load dissipation resistances.

4. Cooling tower

Open flow air circuit rate 1.7m³/s
Continuous water circuit flow rate 15 m³/h

5. Steam condenser

Exchange surface 2.7m²



6. Water and condensate tank 250L

Stainless steel
Level temperature and safety controls
Steam heating
Heater supply pump

7. Gasoline supply tank 250L

Stainless steel
Glass level
Temperature and safety sensors

8. Water treatment

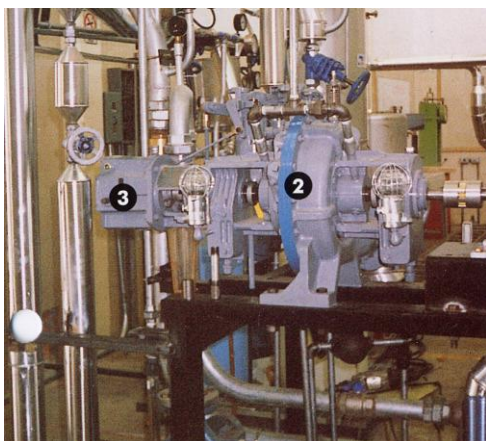
Automatic softener with resin regeneration
Resin tank 100 L
Dosage with volumetric pump 100 L

9. Electric superheater

Power 8kW
Temperature, pressure sensors and safety
Steam flow rate 210 kg/h
Steam temperature 240°C

10. Desuperheater

Plates exchanger 0.6m²
Circulating pump 3.5m³/h
Inlet temperature 240°C
Outlet temperature 188°C
Outlet temperature control and regulation



TVT 3kW

SERVICES :

- Electricity : 400V triphase + N + T – 12kW
- Water : mains

INSTALLATION VOLUME :

- Length : 4000mm
- Depth : 3000mm
- Height : 3000mm

SHIPPING SPECIFICATIONS :

- Volume 32m³
- Gross weight 5000 Kg