4.5 mmbtu Containerised Zone II DNV 2.7-2 Steam Generator



Description

Centurion Power & Equipment has an extensive fleet of steam generators providing outputs up to 5.8 mmbtu in Rigsafe, Zone II and DNV 2.7-2 standards. Our steam generators are an ideal solution for standby or replacement of customers own boiler for onshore and offshore use. They can also support well test, refinery and decommissioning application. The steam generators can be coupled to the Centurion Power & Equipment heat exchanger to give a complete heating solution.

The units are enclosed in purpose-built containers that house the control system, water and fuel tanks allowing economic transportation with a one lift strategy. A remote emergency shutdown facility is available ensuring instant safe shutdown should methane, propane and H_2S gas or a similar hazard be detected or encountered. The recent addition of equipment to allow compliance with the DNV 2.7-2 standard ensures a high degree of safety in operation.

Key Features

- Boiler designed to ASME or BS boiler vessel codes
- Three-pass, wet-back design boiler with low external temperatures
- Containers built to DNV 2.7-1 lifting standard
- Zone II Hazardous Area certified
- DNV 2.7-2 certified
- High ambient capability
- Rig communication hook up facility
- Gas detection system
- Fire detection and suppression system
- Fully automated fire damper louver system
- Compact self-contained design - size of a 20ft shipping container
- Water, condensate returns and fuel storage tanks mounted within the container
- Hydrocarbon detection on steam returns system
- Dual water pump (duty and stand-by)
- Internal spark arrestor
- Remote emergency shutdown facility – electrical or pneumatic
- Steam package ships with a certified steam hose and fittings package
- External operation capability
- Experienced offshore service technician(s) for operational and maintenance assistance

CENTURION POWER & EQUIPMENT

Technical Specifications

Performance	
Saturated steam flow	2,000 kg/hr
Capacity	4.5 Mmbtu
Working pressure	150 PSIG, 10.34 barg
Max steam temperature	186°C
Fuel tank capacity	1,035 litres
Water tank capacity	1,035 litres
Fuel consumption	98.42 litres/hr
Full load running – no returns	10.5 hrs
Water consumption	2,000 kgs per hour
Water quality	Potable Water (Minimum)
Build specification	BS 2790 & ASME 1
Power supply	400 Volts 50 / 60 HZ
Electrical Main Circuit Breaker	32 amps
Start-up power requirement	30 amps
Power Supply Connection	4 pin 3Ph 440 V
Steam Outlet Connection	1 x 2” Hammer Union Fig 206
Returns Line Connection	1 x 2” Hammer Union Fig 206
Water Supply Connection	1 x ¾” Crows Foot

Lifting Specifications, Weights, and Dimensions	
Lifting specifications	DNV 2.7-1 / EN12079
Length	6,058 mm
Width	2,438 mm
Height	2,896 mm
Weight (kg dry)	14,200 kg
Weight (kg operating)	15,000 kg

Safety Features	
Emergency fuel cut off	External Emergency Stop
Low water alarm	Anti-slip flooring
Low water cut off	Rig ESD connection
Gas detection	Fire suppression
Fire Damper Louvers	External operation
Condensate Returns	Rig coms connection
Hydrocarbons detection	

Options	
Dual fuel capability	Low ambient pack
Remote fuelling pack	Steam hard pipe
Insulated pipework	

Note: The above referred specifications are our minimum standard and for guidance purposes only. For steam generator specific information applicable to comply with region specific standards, please consult your local Centurion Power & Equipment representative.

Technical drawings available on request: P&ID, GA.

For more information on Steam Generators, please contact your local Centurion Power & Equipment representative or email us at CPEUK@centuriongroup.co.uk.