

DATASHEET

Boiler and Fired Heater Packages FPSO/FSO Vessels and Offshore Platforms

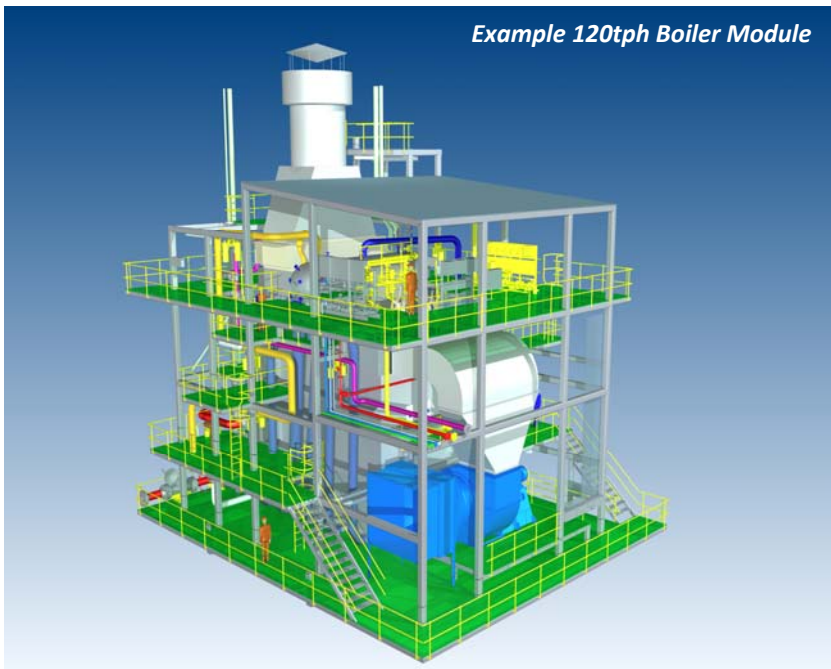


Hamworthy Combustion's proven combustion system, combined with boilers from world-renowned boilermakers provides the Total Power Package for the FPSO market.

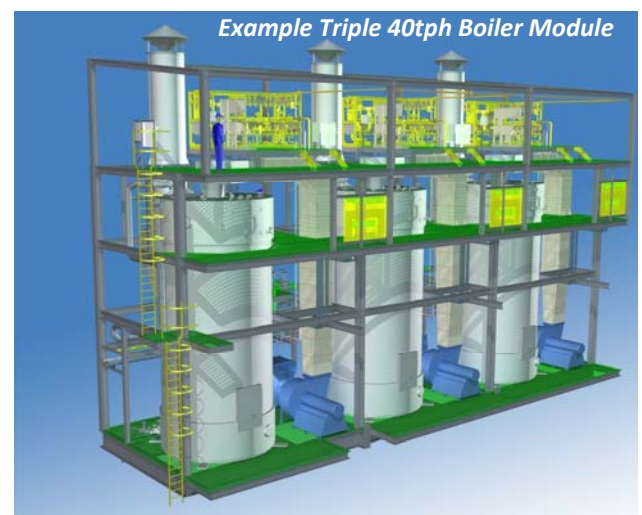


Key Features

- Purpose designed, bespoke integrated energy solutions
- Steam, Hot water and Thermal fluid applications available
- Full range of duties and boiler / fired heater types possible
- Fully modular, skid mounted units – both single and multi-boiler – designed for “single lift” installation
- Based on Hamworthy Combustion's world leading multi-fuel combustion expertise in the Offshore industry
- Long term service support with 24 hours a day, 7 days a week remote condition monitoring available
- Compliant with all Classification Societies
- Worldwide service and spares network
- Training at Hamworthy Combustion Head Office or on-site is available



- Hamworthy Combustion is an established marine supplier with an existing reputation and brand
- Single source – Single accountability



Standard Supply

- Boilers / fired heaters
- Feed water systems including pumps, chemical dosing and deaerator tanks
- Fabricated boiler modules
- Multi-fuel burners
- Windboxes and combustion air fans
- Fuel skids
- Oil pumping equipment
- Gas conditioning equipment
- Control panels and instrumentation



Standard Questions when Quoting

- How many boilers / fired heaters?
- What is the final location of the boilers / fired heaters (ie. on-deck / engine room)?
- What are the performance requirements of the system?
 - Steam: Duty (tph), Pressure & Temperature
 - Hot water: Duty (MW), Pressure & Temperature
- What specification and composition of fuel gas will be used?
- Which oil fuels will be used? (ie. marine diesel, heavy fuel and/or crude oil)
- Which classification society is applicable?
- Are there any emissions requirements? (ie. Low NOx capability)

Type	Thermal Fluid / Hot Water		Steam				
	Horizontal Cylindrical	Vertical Cylindrical	Vertical Cylindrical	D-type Low Pressure		D-type High Pressure	
Duty	to 20 MW	to 30 MW	2 to 50 tph	20 to 50 tph	50 - 220 tph	40 to 60 tph	60 - 220 tph
Pressure	-	-	to 18 bar	to 24 bar	to 24 bar	to 62 bar	to 62 bar
Temperature (C)	As required	As required	Saturated	Saturated	Saturated	to 515	to 515
Number of Burners	1	1	1	1	2, 3 or 4	2	2, 3 or 4
Fuel Gas	✓	✓	✓	✓	✓	✓	✓
Marine Diesel Oil	✓	✓	✓	✓	✓	✓	✓
Heavy Fuel Oil	✓	✓	✓	✓	✓	✓	✓
Crude Oil	✓	✓	✓	✓	✓	✓	✓
Suitable for location On-deck	✓	✓	✓	✓	✓	✓	✓
Single lift Module option	✓	✓	✓	✓	✓	✓	✓
Ignition	Hamworthy Combustion Chentronics Direct High Energy Spark Igniter or diesel pilot						
Incineration of High Inert Gas	Option available						
Burner Type	Hamworthy Combustion DF Register, Low NOx DFL Register or Ultra Low NOx Ecojet™ Register						
Flame Monitor	Hamworthy Combustion SmartScan® 121						
Controls	Hamworthy Combustion standard or full integration with ship IAS						

For further information on combustion equipment please contact the head office:

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HAMWORTHY
 COMBUSTION

Incorporating:
 PEABODY ENGINEERING
 AIROIL - FLAREGAS
 CHENTRONICS

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