






| AHTS | PSV | FPSO | Drill Ship | Semi-sub |
|---|---|---|---|---|
|  |  |  |  |  |

Product

Gas / Oil Burner for Boiler

Gas / Oil Combination Burner For Main boiler(Type SFFG II)



This burner was designed and developed for the main boiler on LNG carriers and is currently being used by many LNG carriers. The boil-off gas from the LNG tank can be used as fuel, and it can also be combined with oil fuel for mixed combustion. The operation efficiency has been improved. This burner can also be configured as a single-fuel gas burner to reduce the impact on the environment and is ideal for complying with the tightening of regulations (for NOx and SOx, etc.). This burner offers excellent load-following performance, high load combustion, energy savings and a reduced environmental impact. Currently, its application is not just limited to LNG carriers but is also extending into other offshore fields, such as FPSO and FSRU.

After-sales service

Service network

We offer our users with our after-sales service including maintenance of equipment after our delivery in many countries all over the world. Our service system will satisfy your consulting service request to any place at any time.

Maintenance and inspection of burner

Burner inspection and combustion adjustment. Burner disassembly, inspection and cleaning. Checking and inspection combustion. Inspection and adjustment of combustion exhaust gas measurement (CO, O₂, smoke scale, etc.).

SFFG II SERIES [STANDARD SPECIFICATION]**OIL/GAS COMBINATION BURNER TYPE SFFG II**

| Burner Type | | SFFGII-355 | -380 | -405 | -430 | -455 | -480 |
|----------------------------------|--------------------|---------------------------|------|------|------|------|------|
| ESTIMATE EVAPORATION/BURNER | T/H | 16 | 17 | 20 | 22 | 25 | 28 |
| Combustion Rate(OIL) | Kg/h | 1150 | 1250 | 1400 | 1650 | 1850 | 2050 |
| Combustion Rate(GAS) | Nm ³ /h | 924 | 1005 | 1125 | 1325 | 1487 | 1648 |
| Oil Pressure | MPa | 0.15~2.2 | | | | | |
| Steam Pressure | MPa | 0.8(Differential control) | | | | | |
| Turn Down Ratio | | 15:1(OIL), #MAX-11:1(GAS) | | | | | |
| Air Register Draft Loss at M.C.R | KPa | 3.0 | | | | | |
| Air Temperature | ℃ | 120 | | | | | |
| Excess Air Ratio | | ≒1.05~1.10 | | | | | |

≒According to the condition

OVERSEAS TECHNICAL AGENTS

SINGAPORE / PHILIPPINES / UAE / GERMANY / USA / UK

VOLCANO CO., LTD

1-3-38 Nonaka-kita, Yodogawa-ku, Osaka 532-0034, Japan

TEL : +81-6-6392-5541 FAX : +81-6-6396-7609

E-mail : info-m@volcano.co.jp

Record

We have a number of sales records for FSRU vessels and FPSO project.

Our high credibility has been established by our track record of supplying burners for main boiler on LNGC, auxiliary

Package

VOLCANO has a wealth of experience dealing with burners and other systems used on vessels: from boiler burners used for the main propulsion engine on large LNG carriers, to auxiliary boiler burners used as heat sources within the vessel, as well as waste oil incinerators, and bilge / sludge treatment systems. We offer products with excellent energy savings and environmental performance in conjunction with a global service network in order to support safe and efficient marine transport.

VOLCANO "TCS (Technical Client Service)" provides after-sales technical support, engineering services, and other solutions.

Certifications/Applicable rules

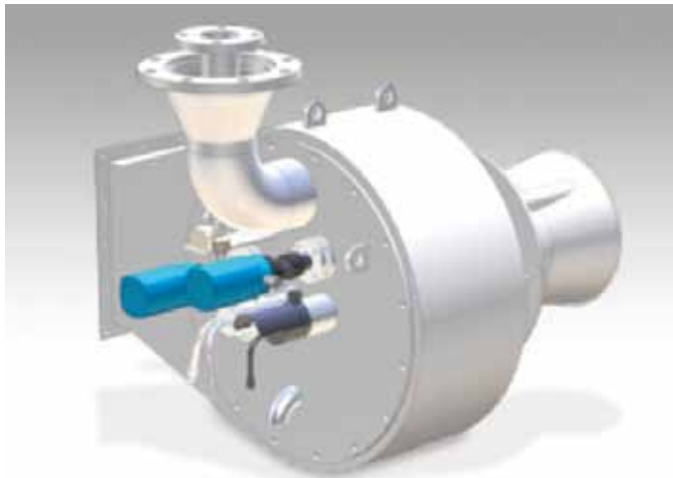
ISO
9001

All of Classification Societies
(ex. NK, LR, ABS, DNV · GL, BV etc)

| AHTS | PSV | FPSO | Drill Ship | Semi-sub |
|---|---|---|---|---|
|  |  |  |  |  |

Product

Gas /Oil Combination Burner for Boiler Gas /Oil Combination Burner For Auxiliary boiler on LNG fueled vessel (Type SFUGX “Vignis”)



Specification

- Evaporation rate: For 4.0 to 10.0 t/h
- Oil combustion capacity: 330 to 835 kg/h
- Gas combustion capacity: 272 to 689 kg/h
- Turndown ratio: 10:1
- Combustion configuration: Gas / Oil Duel combustion, gas combustion, oil combustion
- Spray method: Gas / Diffusive mixing, Oil / Vapor spraying
- Control method: Proportional control
- Compatible fuel: LNG, HFO, MGO and MDO
- Fuel viscosity: Supports 700 cSt

The burner SFUGX “Vignis” was designed and developed for the auxiliary boilers on LNG fueled vessel. This burner supports both oil and gas. We developed this burner based on our experience with SFFG II burners used for the main boilers on LNG carriers. Not only can this burner be configured for single-fuel combustion in both oil and gas applications, but it can also be used for Duel combustion to help save energy and reduce the impact on the environment. This high performance burner adapts well and can support any future changes in fuel types.

- Tri-Fuel burner can support all HFO, MGO and LNG types.
- Up to 5 different combustion modes can be configured and used: all types of oil combustion, gas combustion as well as oil / gas Duel combustion In the oil / gas Duel combustion mode, the Duel combustion ratio can be set freely, making a more economical operation possible.
- Energy saving operation is possible with a turndown ratio of 10:1.
- A specification option can be added which uses a separate burner to make slight adjustments in order to reduce the NOx emissions further.

After-sales service

Service network

We offer our users with our after-sales service including maintenance of equipment after our delivery in many countries all over the world. Our service system will satisfy your consulting service request to any place at any time.

Maintenance and inspection of burner

Burner inspection and combustion adjustment. Burner disassembly, inspection and cleaning. Checking and inspection of combustion. Inspection and adjustment of combustion exhaust gas measurement (CO, O₂, smoke scale, etc.).

OVERSEAS TECHNICAL AGENTS

SINGAPORE / PHILIPPINES / UAE / GERMANY / USA / UK

VOLCANO CO., LTD

1-3-38 Nonaka-kita, Yodogawa-ku, Osaka 532-0034, Japan

TEL : +81-6-6392-5541 FAX : +81-6-6396-7609

E-mail : info-m@volcano.co.jp

Record

We have a number of sales records for FSRU vessels and FPSO project.

Our high credibility has been established by our track record of supplying burners for main boiler on LNGC, auxiliary

Package


VOLCANO has a wealth of experience dealing with burners and other systems used on vessels: from boiler burners used for the main propulsion engine on large LNG carriers, to auxiliary boiler burners used as heat sources within the vessel, as well as waste oil incinerators, and bilge / sludge treatment systems. We offer products with excellent energy savings and environmental performance in conjunction with a global service network in order to support safe and efficient marine transport.

VOLCANO "TCS (Technical Client Service)" provides after-sales technical support, engineering services, and other solutions.

Certifications/Applicable rules

ISO
9001

All of Classification Societies
(ex. NK, LR, ABS, DNV · GL, BV etc)

| AHTS | PSV | FPSO | Drill Ship | Semi-sub |
|---|---|---|---|---|
|  |  |  |  |  |

Product

Gas /Oil Combination Burner for Boiler

Gas /Oil Combination Burner For Auxiliary boiler on LNG fueled vessel(Type MJGX "Vignis-mini")



Specification

- Evaporation rate: For 1.0 to 3.0 t/h
- Oil combustion capacity: 90 to 250 kg/h
- Gas combustion capacity: 74 to 206 kg/h
- Turndown ratio: 3:1 to 10:1
- Combustion configuration: Oil / Gas Dual combustion, Gas combustion, Oil combustion
- Spray method: Gas / Diffusive mixing, Oil / Vapor spraying
- Control method: Proportional control
- Compatible fuel: LNG, HFO, MGO and MDO
- Fuel viscosity: Supports 700 cSt

The burners were designed and developed for the auxiliary boilers on LNG Fueled vessels and supports both oil and gas. We developed this burner based on our experience with SFFG II burners used for the main boilers on LNG carriers and with MJ burners as all automatic mini-jet burners used for composite boilers/ auxiliary boilers. Not only can this burner be configured for single-fuel combustion in both oil and gas applications, but it can also be used for Dual combustion to help saving energy and reduce the impact on the environment. This high performance burner adapts well and can support any future changes in fuel types.

- Tri-Fuel burner can support all HFO, MGO and LNG types.
- Up to 5 different combustion modes can be configured and used: all types of Oil combustion, Gas combustion as well as Oil / Gas
- Dual combustion. In the Oil / Gas Dual combustion mode, the Dual combustion ratio can be set freely, making a more economical operation possible.
- Energy saving operation is possible with a turndown ratio of 3:1 to 10:1.
- A specification option can be added which uses a separate burner to make slight adjustments in order to reduce the NOx emissions further.

After-sales service

Service network

We offer our users with our after-sale services including maintenance of equipment after our delivery in many countries all over the world. Our service system will satisfy your consulting service request to any place at any time.

Maintenance and inspection of burner

Burner inspection and combustion adjustment. Burner disassembly, inspection and cleaning. Checking and inspection of combustion. Inspection and adjustment of combustion exhaust gas measurement (CO, O₂, smoke scale, etc.).

OVERSEAS TECHNICAL AGENTS

SINGAPORE / PHILIPPINES / UAE / GERMANY / USA / UK

VOLCANO CO., LTD

1-3-38 Nonaka-kita, Yodogawa-ku, Osaka 532-0034, Japan

TEL : +81-6-6392-5541 FAX : +81-6-6396-7609

E-mail : info-m@volcano.co.jp

Record

2015 Annual total 2 units

For LNG fueled PCC 1 unit for a vessel

For LNG fueled PCC 1 unit for a vessel

2016 Annual total 1 unit

For LNG Bunkering vessel 1 unit for a vessel

For more details, please feel free to contact with us via E-mail.

E-mail: info-m@volcano.co.jp

Package

VOLCANO has a wealth of experience dealing with burners and other systems used on vessels: from boiler burners used for the main propulsion engine on large LNG carriers, to auxiliary boiler burners used as heat sources within the vessel, as well as waste liquid incinerators, and bilge / slush treatment systems. We offer products with excellent energy savings and environmental performance in conjunction with a global service network in order to support safe and efficient marine transport.

VOLCANO "TCS (Technical Client Service)" provides after-sales technical support, engineering services, and other solutions.

Certifications/Applicable rules

ISO
9001

All of Classification Societies (ex. NK, LR, ABS, DNV, BV etc)