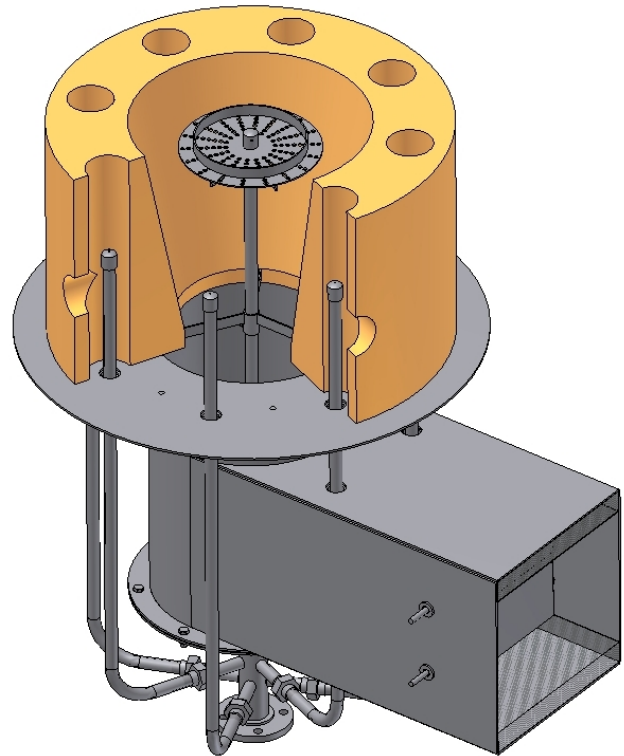


Applications

- All Process Fired Heaters such as
 - Crude and Vacuum Distillation Unit
 - Delayed Coker
 - Hydrocracker and Hydrotreater
 - Platformer

Design Requirements

- Wide operational envelope
- Able to handle a multitude of fuels
- Flexible design considerations
- API specification compliant
- Robust for long through life cost



Standard Supply

- **Windbox** - 3 or 5 mm carbon steel insulated with 50mm mineral wool fully retained with perforated plate / expanded metal
- **Damper** – twin dampers, integral with the windbox and fully lockable, with external position indicator in any position. Can be designed to operate from grade for any heater height
- **Single Burner Tile** - high grade low cement castable with identical pieces that can be installed in any position
- **Gas Sprayer Carriage** - fully welded construction with single gas inlet. All gas lances can be designed to be individually removable using fixed or flexible piping as an option
- **Air Pressure Drop Plate** -simple design to ensure accurate pressure drop across burner throat

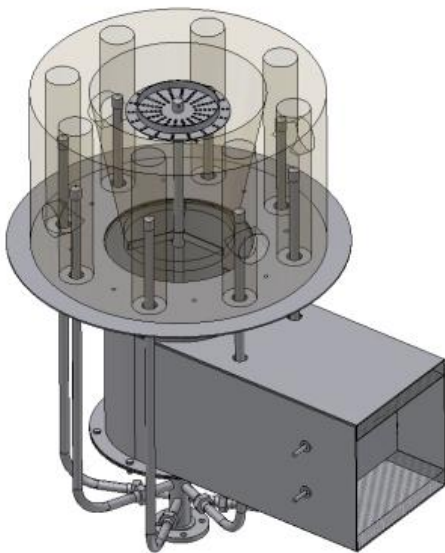
Key Features

- Incorporating Staged Fuel Ultra low NOx technology with flue gas re-circulation.
- Primary stability zone supports main low NOx flame
- Fixed or removal lances for ease of maintenance
- Low excess air for maintaining efficient combustion
- Suitable for a variety of applications.
- Robust materials and methods of construction ensures long and reliable life
- Designed and manufactured based on latest industry standards such as API 535, API 560 and EN 746-2



Specifications

- **Liberation** 1.0 to 5.0 MW
- **Fuels** Natural gas and refinery gas blends including butane, methane and hydrogen
- **Fuel Pres.** Gas 0.5 to 2.0 kg/cm²
- **Excess Air** 7 to 30 %
- **Register Draught Loss** 6 to 15 mmwc



Assumed conditions unless stated / requested

- **Furnace Temperature** 850 °C
- **Register Draught Loss** Natural Draught 10 mmwc
- **Combustion Air Temp** 25 °C
- **Excess Air** 10%
- **Fuels** All Refinery Fuels @ 1.5 kg/cm²
- **NOx** Less than 50 mg/Nm³

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

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Hamworthy Combustion Engineering Limited reserve the right to make changes and improvements which may necessitate alteration to the specification without prior notice


HAMWORTHY
COMBUSTION

Incorporating:

PEABODY ENGINEERING
AIROIL - FLAREGAS
CHENTRONICS