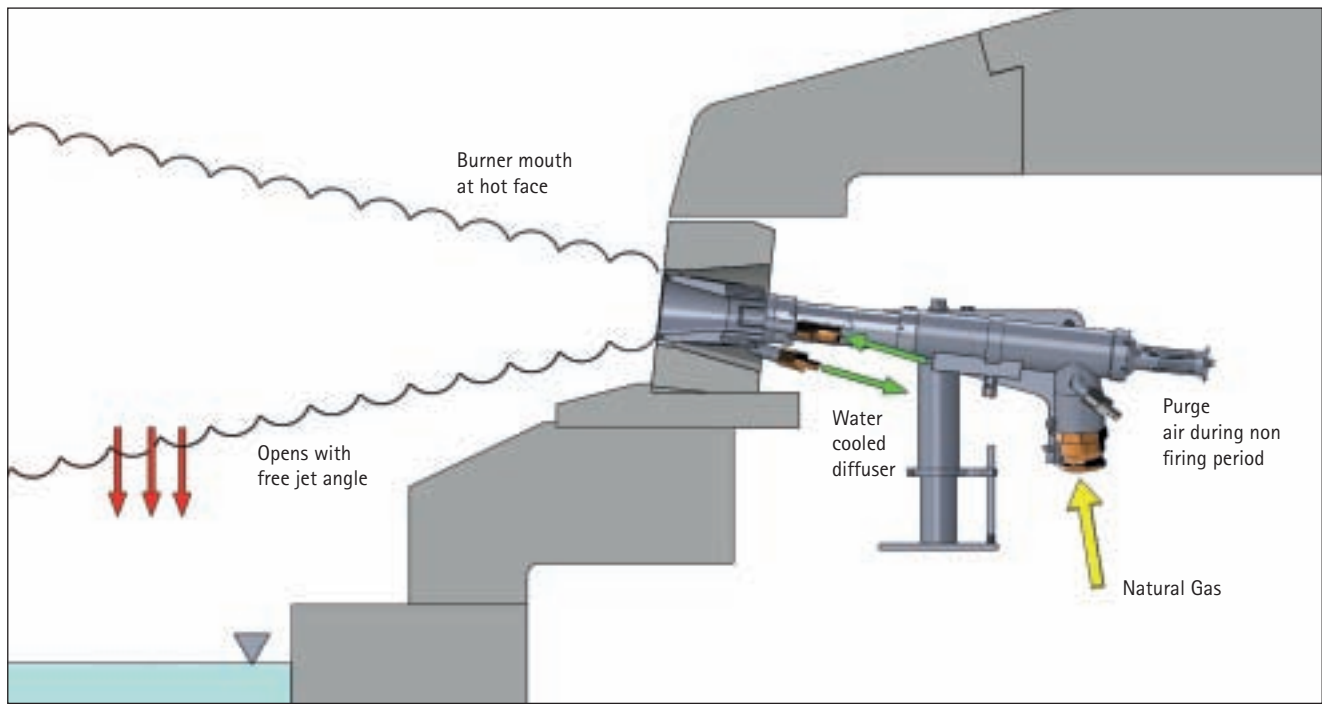


FT FREEJET GAS INJECTOR

Underport burner



Technical Data

- Fuel: Natural gas, LPG, LNG, Propane
- Energy output: 0,2 ... 8,5 MW (3 sizes)
- Purge air: $\geq 0,1$ bar (non-firing period)
- Water cooling: 10 ... 20 l/min (continuous)

Technical Concept

- Applicable underport firing for regenerative cross-fired and end-port furnaces
- Injection of the fuel into the furnace following the opening angle of a free gas jet
 - Creating a low turbulent gas flow
 - Controlled delay in flame ignition
 - Lower temperature of flame root with increase of emissivity
- Injector positioned flush with inner side of furnace chamber
 - Injector bordered with a special burner block, designed with cylindrical opening, classical burner block will be replaced with this design
 - Injector forms complete free gas jet by itself
 - Natural gas has no contact with refractories
- Position requires water cooled diffusor
- Adjustable gas velocity, vertical and horizontal angle



Advantages and benefits

- Burner technology achieves low NO_x emissions
- Increase of energy efficiency
- Lower crown and waste gas temperatures
- Lower specific energy consumption
- Increase of melting capacity
- Decrease of thermal corrosion of refractories leads to increase of furnace lifetime
- Low maintenance
- Less defects of burnerblock corrosion



Scope of supply

- FT FreeJet Gas Injectors operated $\pm 30\%$ of nominal capacity
- Injector brackets
- All flexible hoses as required



Options

- Optimization of melting process, using CFD simulation
 - Renting and maintenance contract
 - Port design optimization
 - Regular service during and after warranty period
- Control panels & safety trains delivery