

ECLIPSE WGD

THROUGHPORT GAS BURNERS

Water cooled throughport burners for regenerative glass furnaces

Eclipse WGD burners are compact water cooled burners designed to be inserted into the port neck of a regenerative glass furnace. The burner is fitted to the Eclipse retraction mechanism to withdraw the burner from the furnace when not firing. Using throughport burners with the Eclipse retraction mechanism ensures the lowest possible maintenance and consistent combustion essential for high glass quality.

Excellent Flame Coverage

The burner produces a flat, fan shaped luminous flame using a unique arrangement of converging flat jet nozzles. Only one burner is to be used in each port. Excellent flame coverage of the glass is ensured with this type of burner and flames are extremely luminous, ensuring high heat transfer and low NO_x. The flame location is very easily adjusted within the furnace by changing the gas flow ratio to the top and bottom nozzles, ensuring that combustion is taking place at the optimum position.

Port Design

The correct port design is essential for this burner. Contact your Eclipse representative to provide the water jacket and nozzle design information for each specific glass plant application.

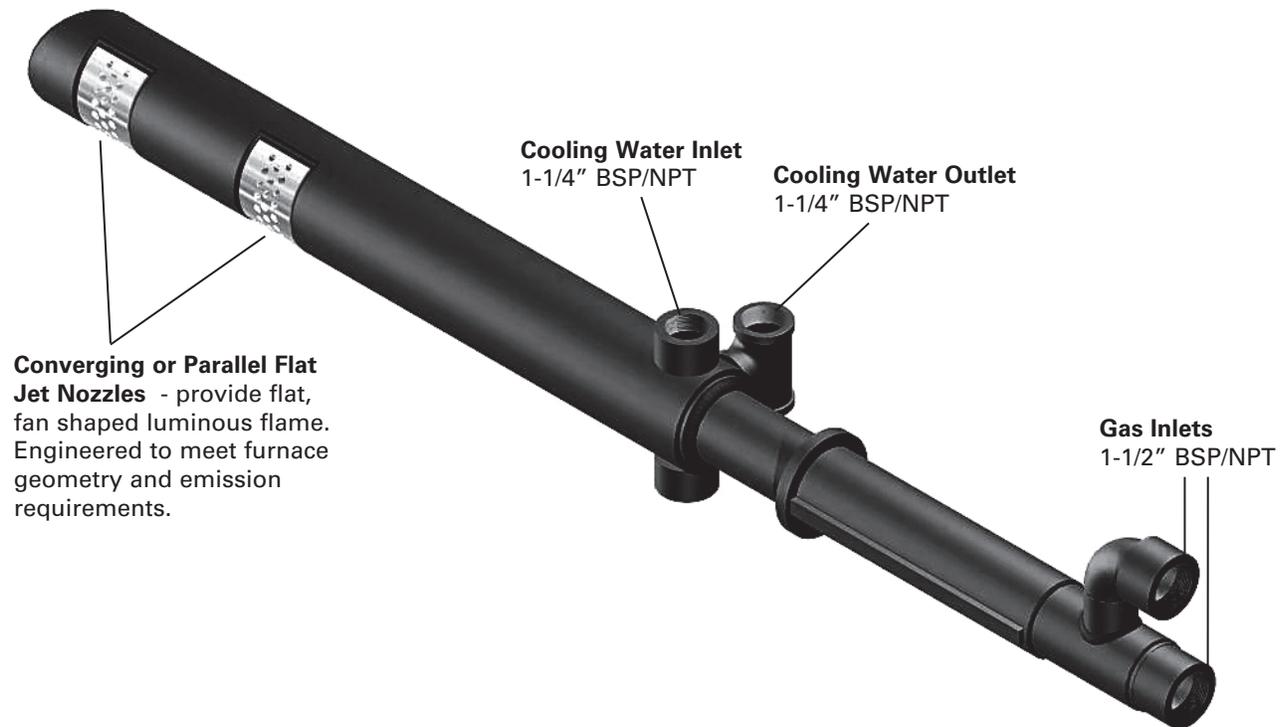


WGD Features

- Reduced fuel consumption
- Refractory savings
- Reduced batch carryover
- High glass quality
- Compact burner and water jacket design
- Low NO_x emissions
- Luminous flame for high heat transfer
- Excellent flame coverage

WGD Throughport Gas Burners

Setting new standards for versatility and flexibility



Burner capacity ⁺	200 Nm ³ /h (7680 scfh) - 1200 Nm ³ /h (46,080 scfh)
Gas pressure	250 mbar (3.6 psig)
Burner length*	1400mm to 2000mm (55" to 79")
Burner Diameter	102mm (4")
Flame Length.....	7.5m max (24.6 feet max)**
Spray angle	60°-100°
Cooling water flow.....	80 l/min (21 gpm)
Cooling water pressure drop	0.35 to 0.5 barg (5 to 7.3 psig) depending on burner length
Cooling water inlet temperature	40°C max (104°F max)
Cooling water temperature rise	20°C max (36 °F max)
Water condition	< 30 ppm Hardness < 1 ppm dissolved oxygen pH between 7.5 and 8.5

* 100mm increments (~ 4")

** Flame length is an estimate only. Actual flame length will vary depending on port design, as well as furnace and process conditions.

+ Actual input dependent on application requirements.