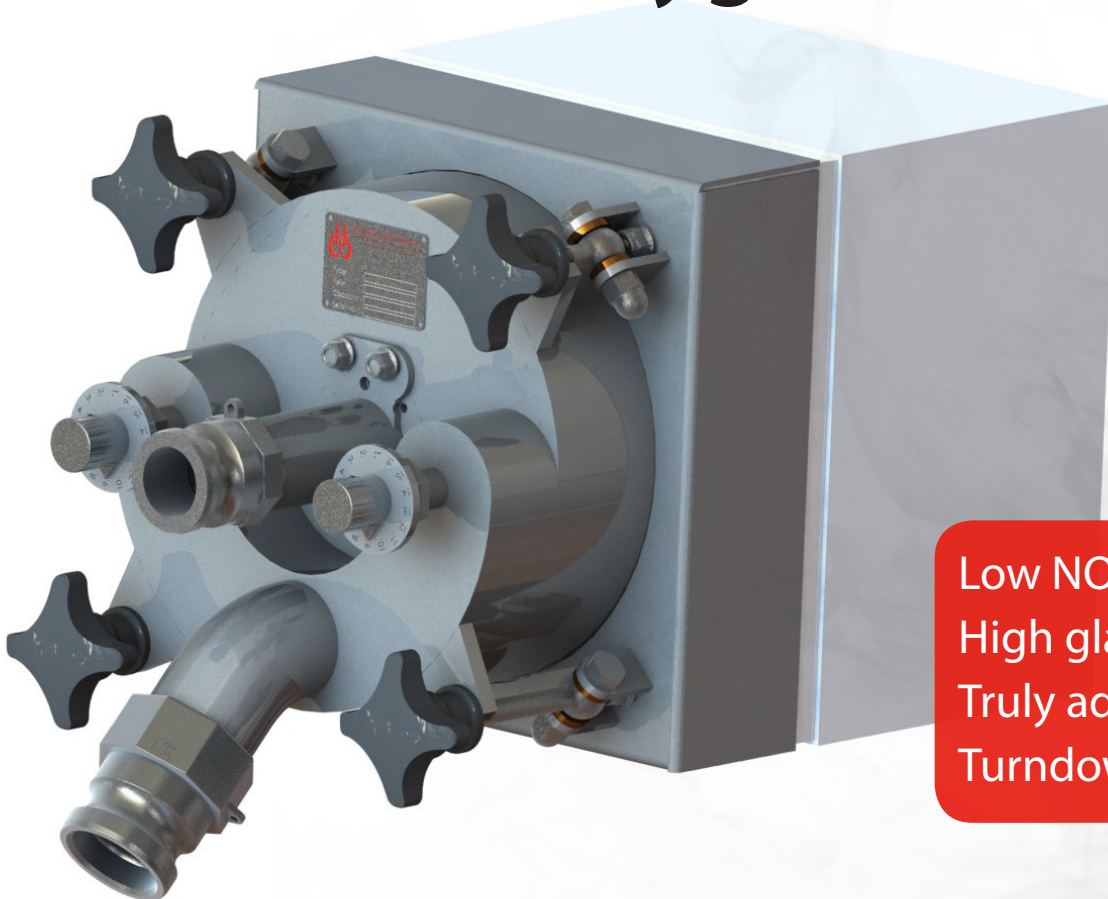


Quadraflo - Oxygen Burner



Low NO_x
High glass bath coverage
Truly adjustable flame
Turndown 4:1

The Quadraflo is a Patented Oxygen Burner, developed with a configuration that produces a truly adjustable flame length and luminosity. The burners given rating is the mid range of the burner or the nominal rating. These burners have a 4:1 turndown.

At the nominal rating the burner has the greatest flame adjustment. This is achieved by opening or closing the secondary oxygen balancing valve. This either adds oxygen to the secondaries thus increasing flame length and luminosity or subtracts oxygen to the secondaries thus reducing flame length and luminosity.

This is without changing the firing rate. Typically the flame length at the nominal rating can be increased by 50%.

The Quadraflow Burner has been tested with pre-heated Oxygen at 550°C and 1200°C. The efficiency gains approx. 15%.

Hotwork and UAS specialised in supply of auxiliary equipment, including full gas control stations, furnace control system (DCS), full automation, exhaust gas analysis and Oxygen probes as well as tuning, supervision and commissioning services worldwide.





FIGURE 1 - QUADRAFLO Conical at 1.0 MW, natural gas and oxygen, high momentum setting.



FIGURE 2 - QUADRAFLO Conical at 1.0 MW, natural gas and oxygen, low momentum setting.



FIGURE 3 - QUADRAFLO Conical hot face view at 1.0 MW, natural gas and oxygen, high momentum setting.



FIGURE 4 - QUADRAFLO Conical hot face view at 1.0 MW, natural gas and oxygen, low momentum setting.



Figure 1 1.0 mmBtu/Hr.
High Momentum Configuration



Figure 2 1.0 mmBtu/Hr.
Low Momentum Configuration

Figure 1 shows the flame configuration at the high momentum setting, note the sharp, distinct flame pattern and lower luminosity. The flame is generated by two sets oxygen holes surrounding the central fuel gas. These holes are designed to collide at a point out and away from the refractory block. As a result there is no flame produced in the burner block. Figure 2 shows the low momentum configuration, note the lazy, high luminosity flame. This flame pattern is desired where a wide area requires coverage.

Swiss Quality and German Reliability complete engineering and supply



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