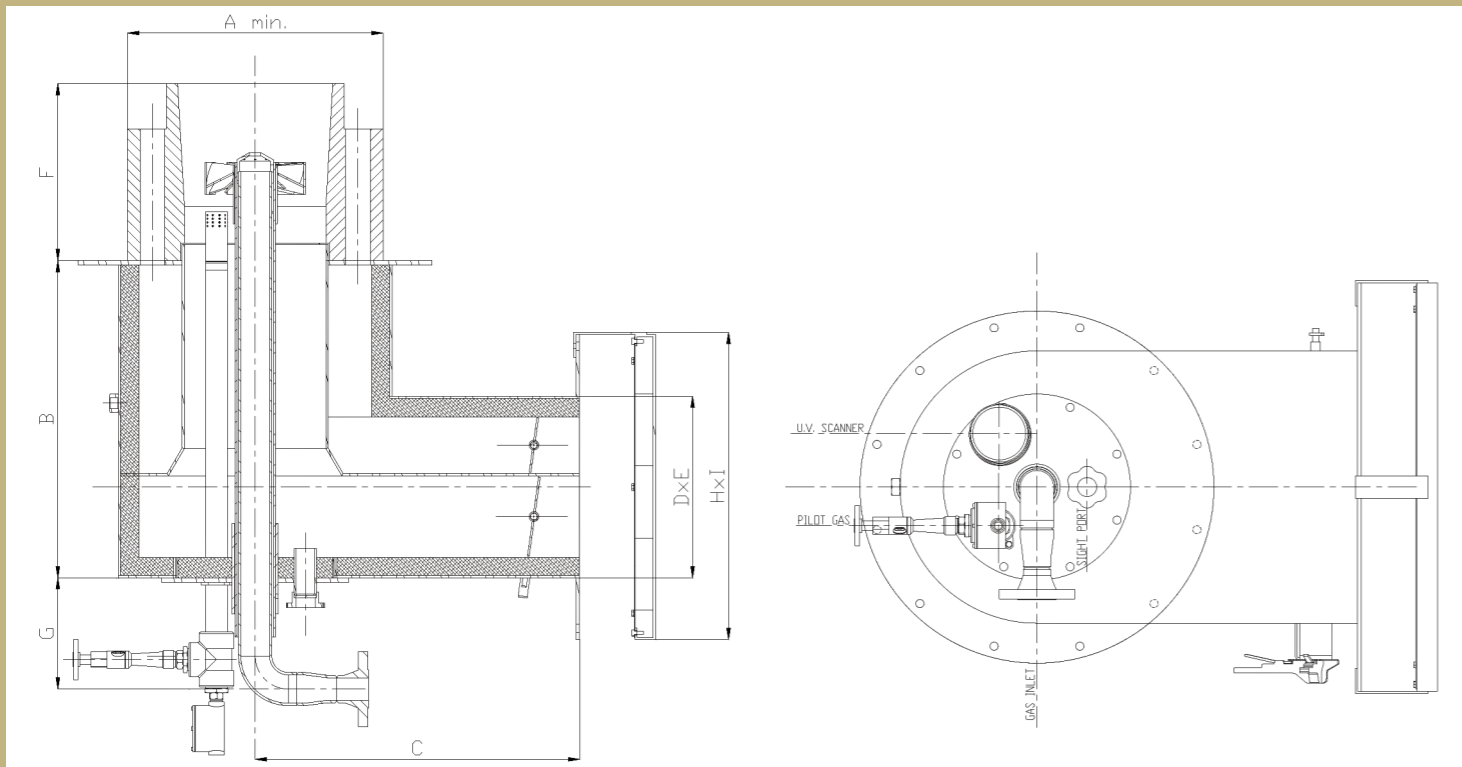


Air staging natural draft gas burner



burner main dimensions¹

Burner Size MW	DIM A (dia.)	DIM B	DIM C	DIM D	DIM E	DIM F	DIM G	DIM H	DIM I
0,5	700	800	700	450	500	300	300	750	800
0,8	700	800	700	450	500	300	300	750	800
1,2	800	900	800	500	600	300	300	800	950
1,8	800	900	800	500	600	300	300	800	950
2,6	800	1000	900	550	650	350	300	900	1050
3,8	800	1000	1000	600	700	350	300	950	1150
5,7	1000	1100	1000	600	700	400	300	950	1150
8,8	1000	1100	1100	650	750	400	300	1050	1200

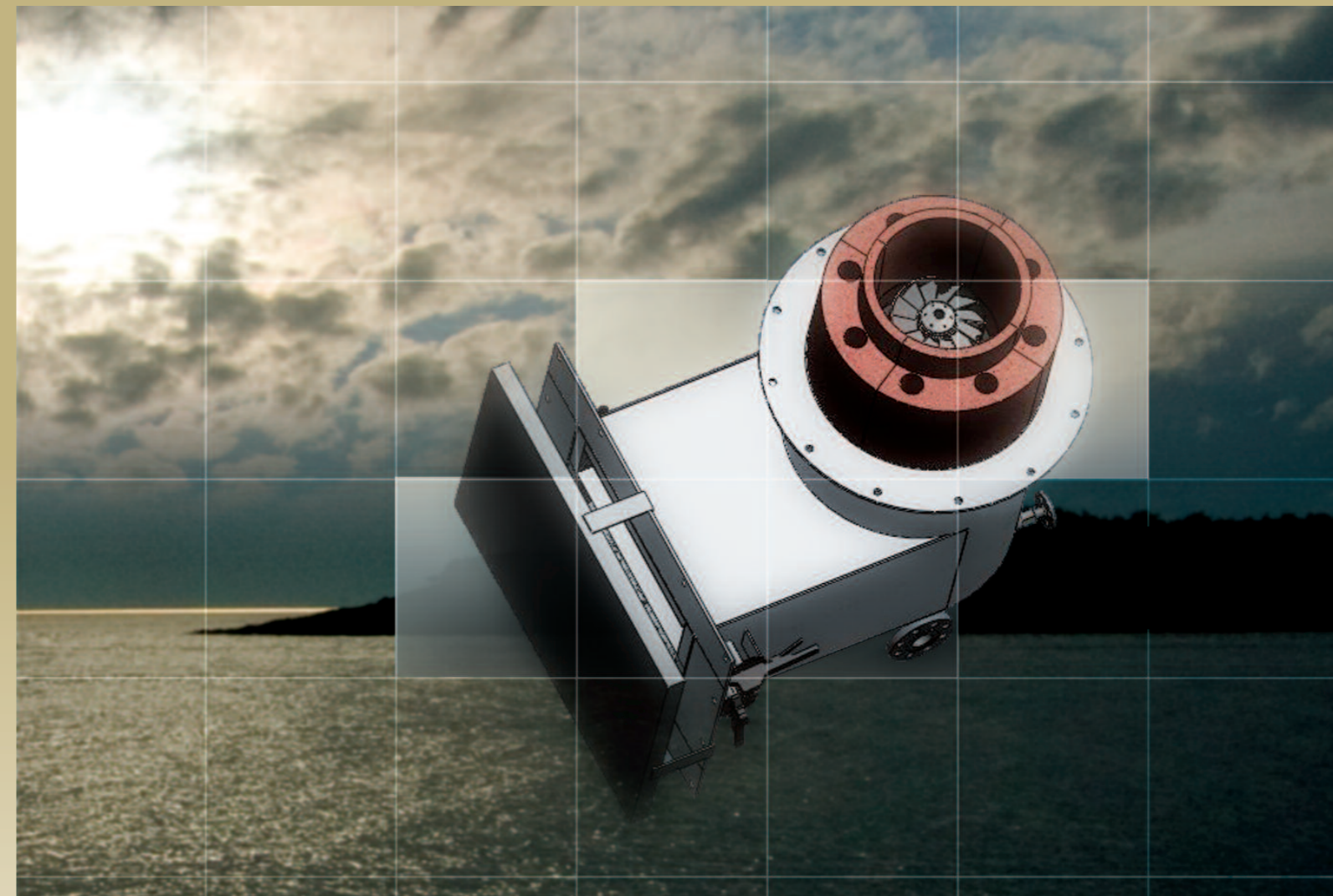
¹ Dimensions in case of order can be changed to suit design data.



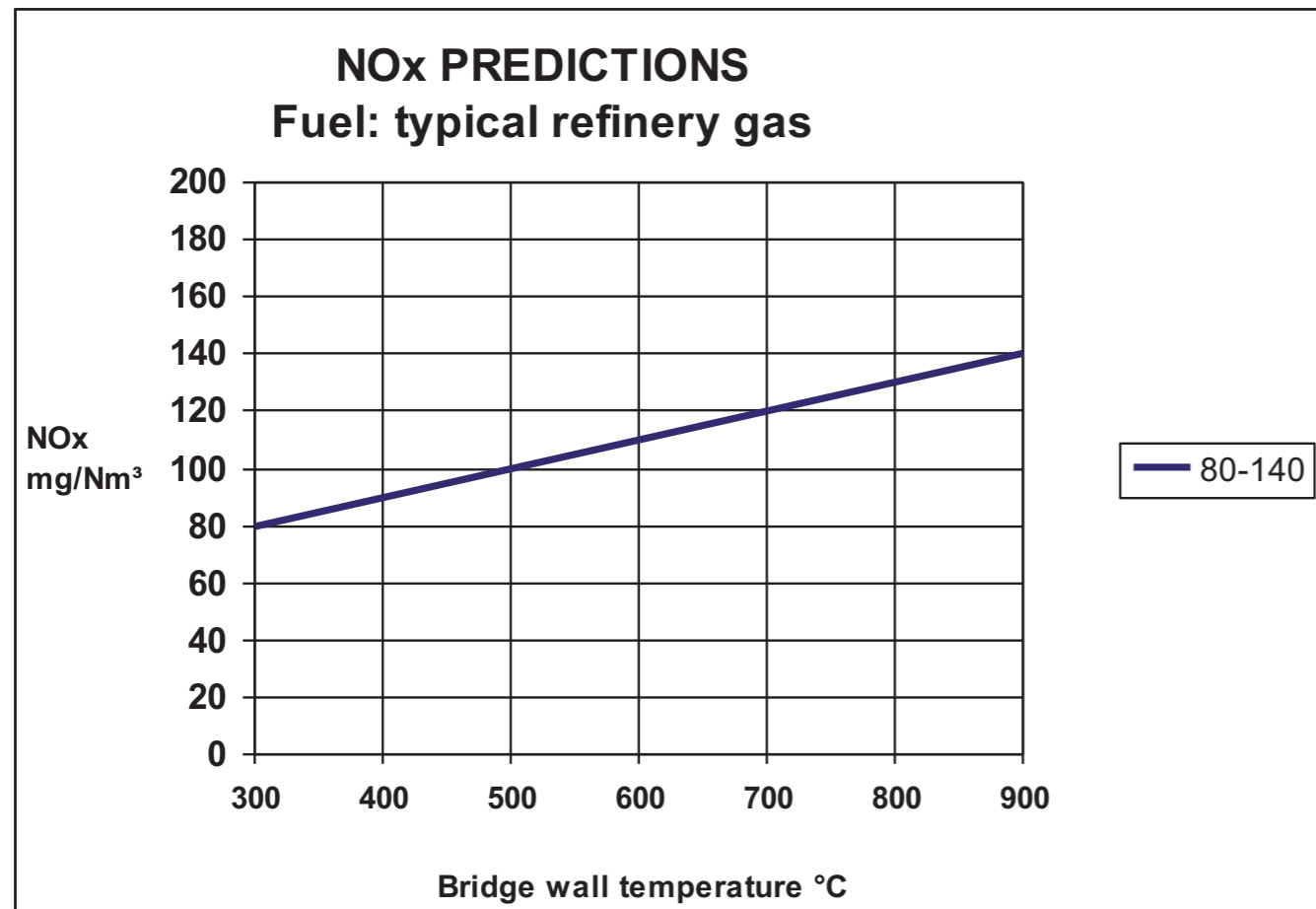
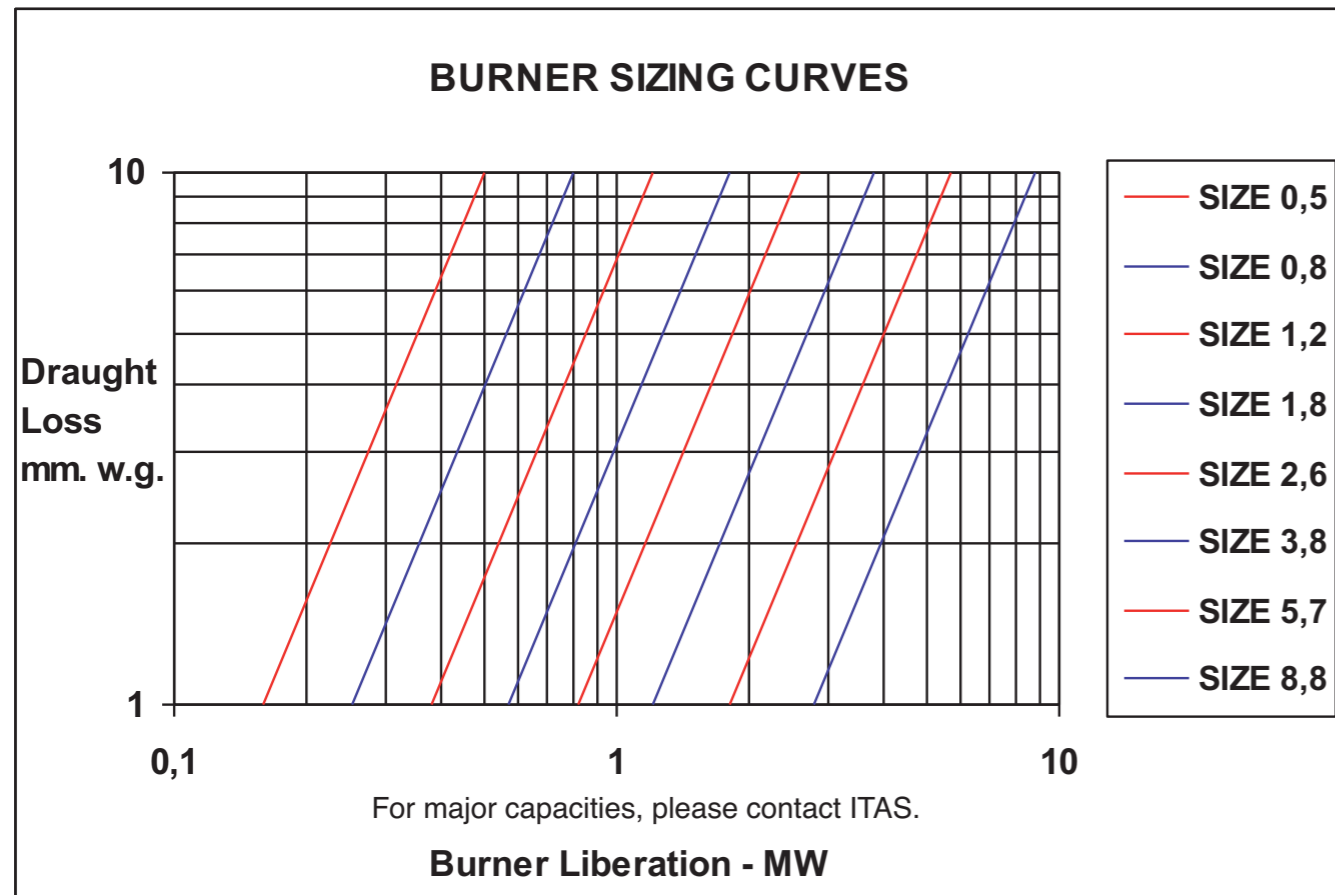
E/P/B/R/RF-NDG-AS/01120



ITAS Air Staging Natural Draft Gas Burner mod. RF-NDG-AS

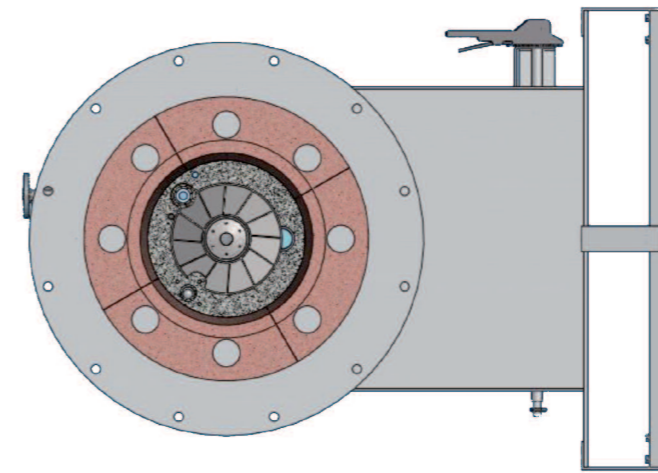


Air staging natural draft gas burner



Air staging natural draft gas burner

ITAS S.p.a. is an engineering company designing and supplying, amongst many other products, burners and accessories for combustion system as well as entire turn-key combustion plants.

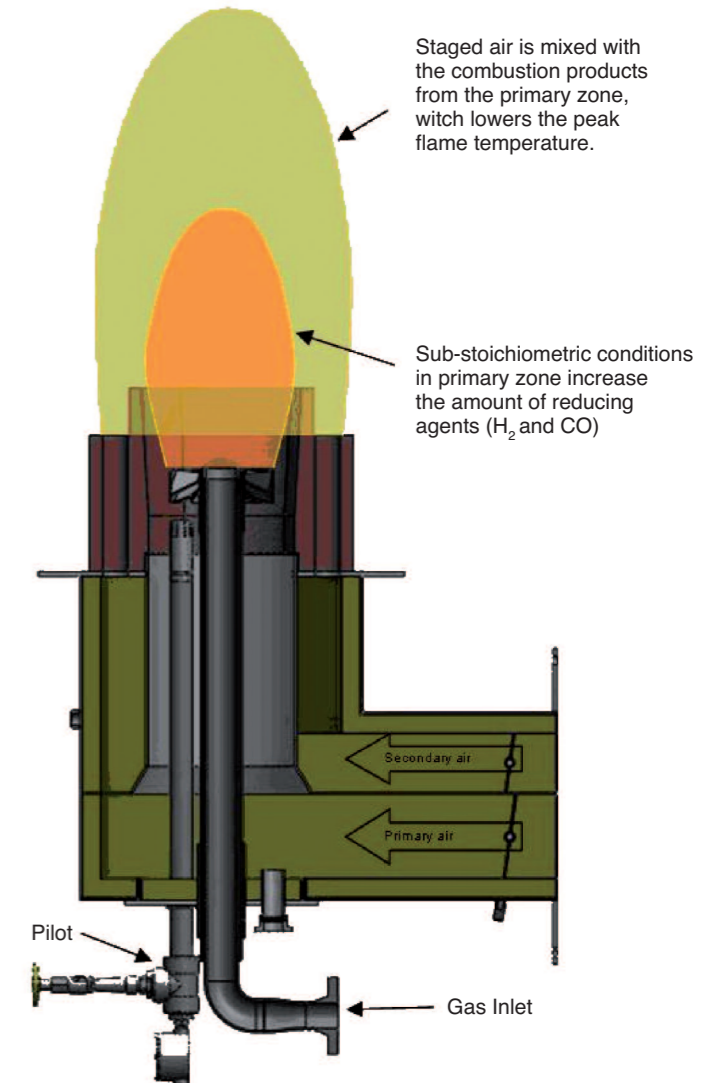
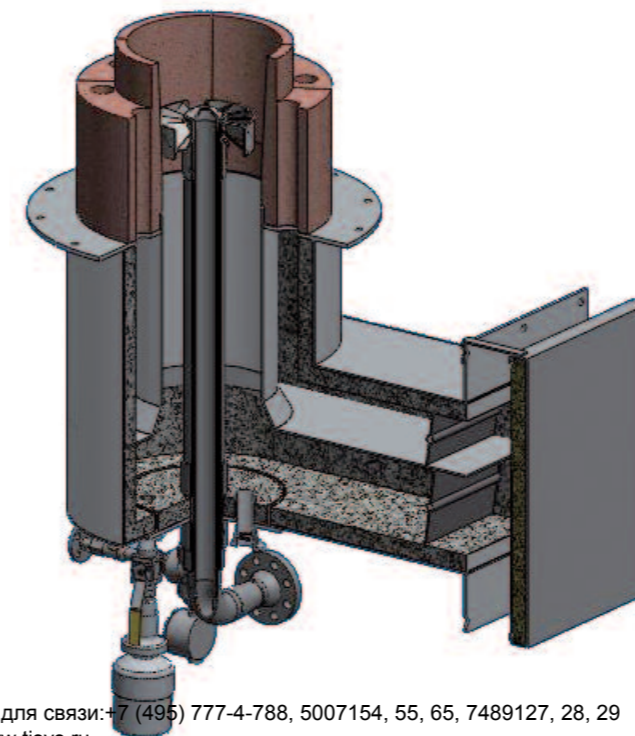


Draught

Draught is a measure of the energy available to drive the combustion air through the burner and mix it with the fuel.

Natural Draught is a function of the temperature of the hot box enclosing the combustion process, and the height of the box/chimney which discharges the effluent gases to atmosphere.

Draught levels in this type of system are relatively low, resulting in low energy for mixing the combustion air with the fuel, and sometimes limiting the combustion efficiency that it is possible to design into the burner. ITAS has a range of Natural Draught Burners using this combustion technique.



Air Staged combustion is an effective technique for lowering NOx. Staging means that some of the oxidizer is added downstream of the main combustion zone. In air staging, some of the combustion air is directed into the primary combustion zone, while the balance is directed into secondary and even tertiary zones in some cases.

This makes the primary zone fuel-rich, which is less conducive to NOx formation when makes primary zone fuel-pared to stoichiometric conditions. The unburned combustibles from the primary zone are then combusted in secondary and tertiary zones. While the overall stoichiometry may be the same as in a conventional burner, the peak flame temperature is much lower in the staged air case, because the combustion process is staged over some distance, while heat is simultaneously being released from the flame.

The lower temperatures in the staged air flame help reduce the NOx emissions. To be even closer to the needs of the customer, ITAS requires modifications to general standards. Air staging burners are available in the capacity range from 0,5 up to 9 MW. NOx emission is below 140 mg/Nm³ for any operating condition.