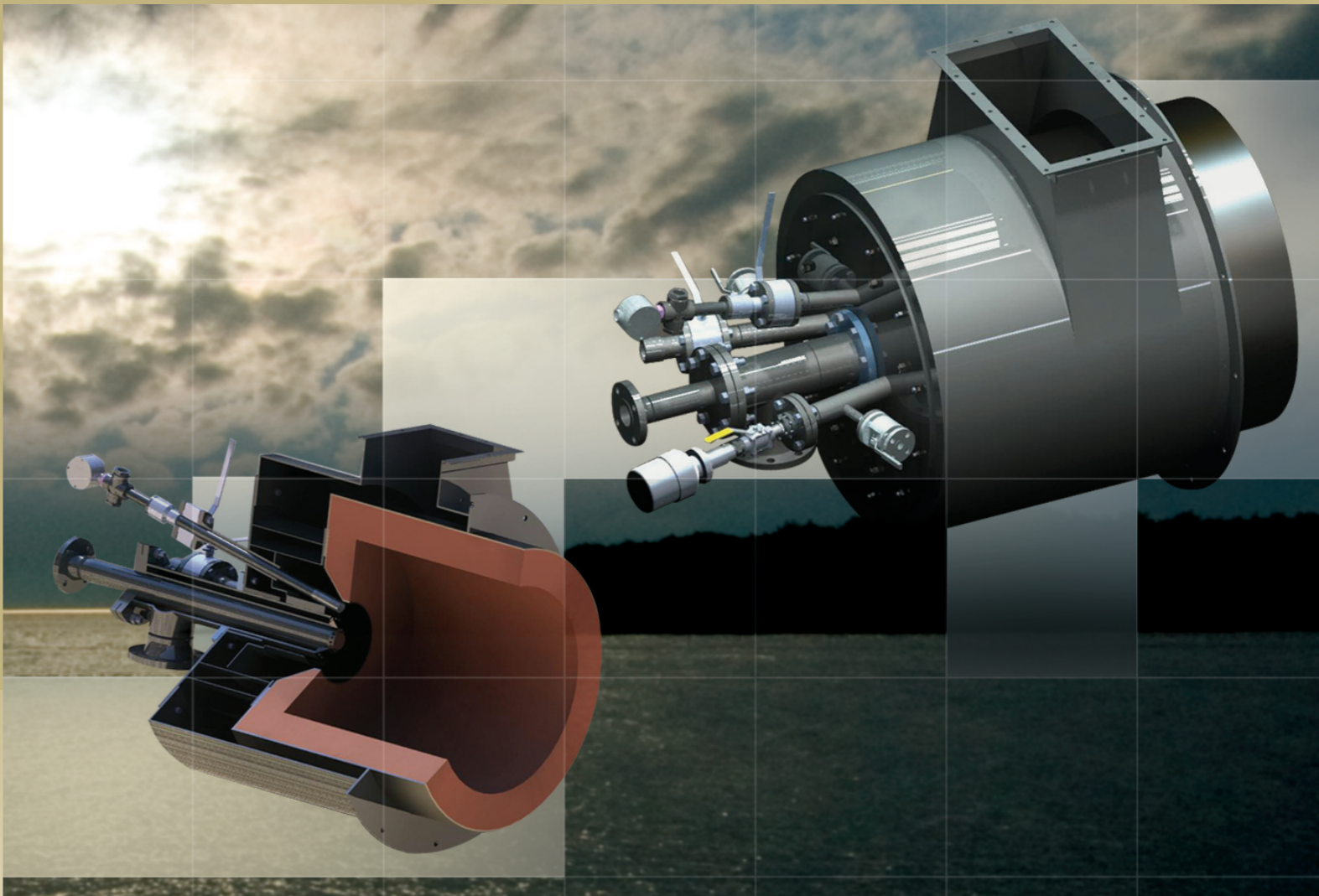


ITAS High Intensity Burner



ITAS High Intensity burner: main dimensions

BURNER SIZE	DIMENSIONS (mm)									
	A	B	C	D	E	F	G	H	I	L
HI 1.5	1-1/2"	740	460	300	340	480	860	610	410	370
HI 3	2-1/2"	860	530	230	530	630	990	760	530	560
HI 5	3"	1020	620	310	635	830	1140	890	660	670
HI 7.5	3"	1140	710	380	710	980	1270	990	750	760
HI 10	3"	1320	810	460	810	1190	1470	1140	910	890
HI 12.5	4"	1450	890	530	910	1330	1600	1270	1040	960
HI 15	4"	1630	990	620	1020	1540	1780	1400	1170	1090
HI 20	4"	1905	1180	760	1190	1840	2060	1630	1340	1270
HI 25	6"	2030	1240	840	1270	1970	2180	1700	1470	1330
HI 35	6"	2390	1470	980	1500	2320	2540	2040	1730	1520
HI 45	8"	2640	1650	1100	1660	2500	2790	2230	1930	1680
HI 60	8"	3000	1880	1310	1880	2970	3150	2490	2190	1880

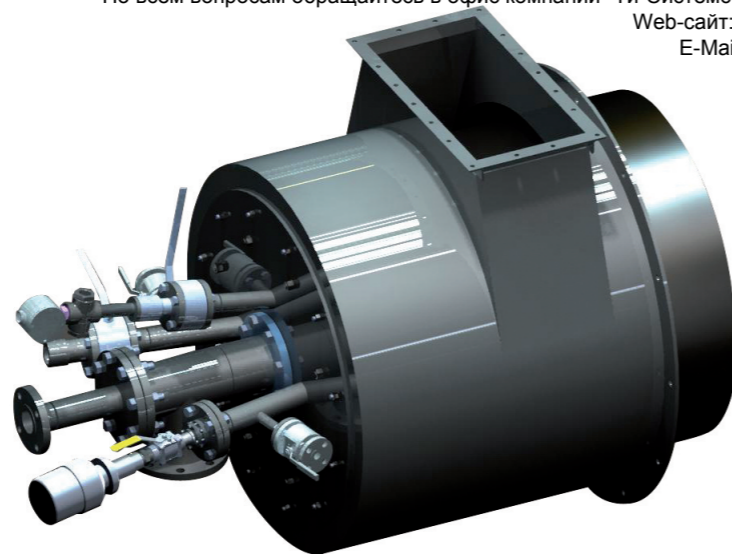
Note: dimensions are not binding and may be subject to variations



Introducing ITAS new High Intensity Burner

The ITAS High Intensity Burner is a dual-fuel, low emission burner which operates at maximum efficiency whether firing light fuel oil or natural gas, propane, butane, tail gas or other mixed gases.

High Intensity burners can operate from 1,5 up to 60 MW. Atomization of the oil can be made by steam, compressed air or any other gaseous fuel. Low pressure combustion air is used with all sizes. All units are available as completed Packaged units or basic Burners.

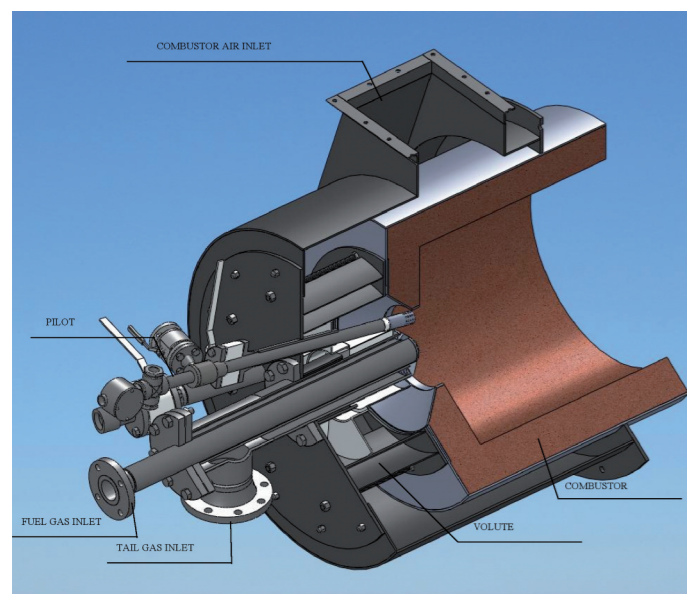
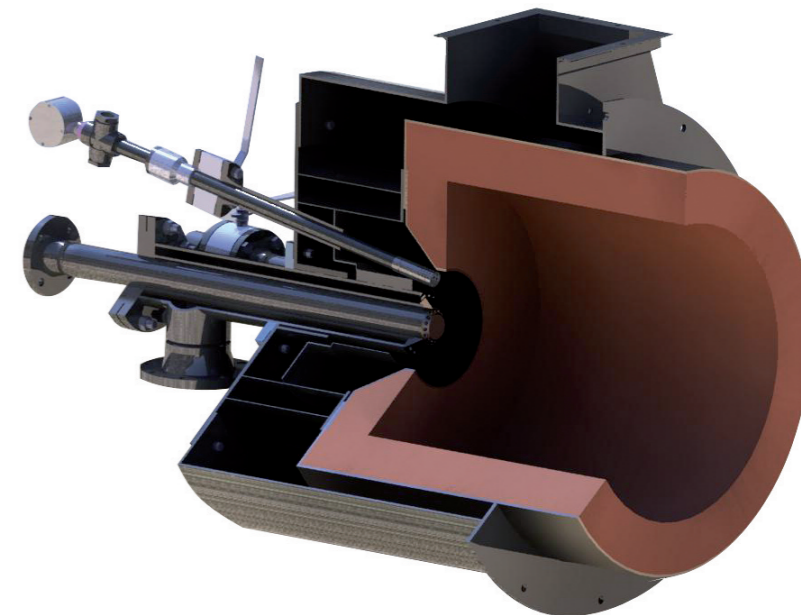


Design Features

The four major parts of the High Intensity burner are windbox, air volute, combustor and gas/oil gun system.

The combustion air is rapidly rotating and swirling as it leaves the volute end cone and enters the combustor.

This stream continues to spin as it passes down the combustor and while expanding, it generates a vortex that produces a negative pressure gradient up the center axis.

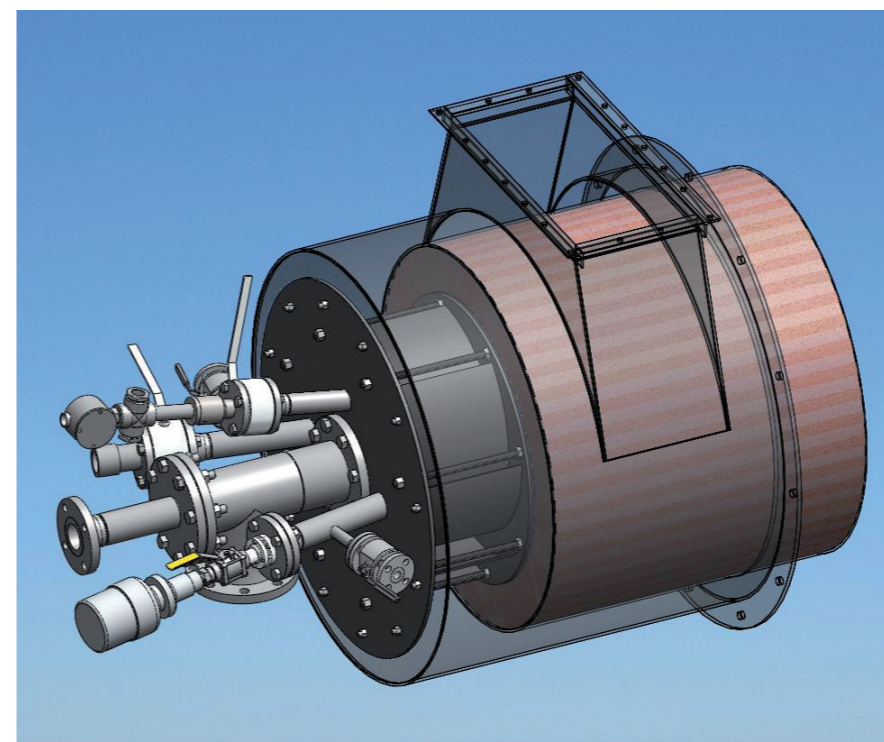


Typical applications

The High Intensity Burners can be applied to virtually any heating process.

The following list includes many of the most common applications:

- Industrial & marine boilers;
- combination waste heat boilers and liquid or gaseous incinerators;
- steam generators;
- crude heaters, process heaters & superheaters;
- process air heaters.



Thus, a large portion of the hot flue gas tending to exit the combustor is drawn into the center core where it is recirculated toward the fuel tip nozzles.

This continuously supplies a high temperature source for the evaporation and ignition of the fuel.

The atomizer is precision machined from a high grade stainless steel.

The windbox, volute and combustor outer shell are fabricated from heavy gauge, all welded steel.

A gas pilot, sight port and two flame scanner ports are supplied as standard.

PARAMETER	SPECIFICATIONS												
	BURNER MODEL												
	HI 1.5	HI 3	HI 5	HI 7.5	HI 10	HI 12.5	HI 15	HI 20	HI 25	HI 35	HI 45	HI 60	
Max Heat Liberation (MW)	1.5	3	5	7.5	10	12.5	15	20	25	35	45	60	
Min Heat Liberation (MW)	0.15	0.3	0.5	0.75	1	1.25	1.5	2	2.5	3.5	4.5	6	
Fuels	Gases: Natural, Propane, Butane, manufactured and other mixed gases.												
	Oils: Light and heavy oils.												
Flame Detection	UV or UV+IR Scanners												
Pilot	Raw gas pilot. Natural gas or propane.												
Preheated Combustion Air	260° C Maximum. Contact ITAS for burner sizing recommendations with preheated air.												
Burner Type	Shorter, high intensity flame.												
Burner Refractory	Burners can be provided with a factory installed refractory muffle block. A 90% alumina air bond refractory is standard.												
Fuel Guns	Gas Only: Gas gun only supplied. Fuel ports sized for natural gas. For other gases, contact ITAS.												
	Oil Only: Oil gun is supplied with support tube arrangement.												
	Combination: Both oil and gas guns provided for combination gas/oil burners.												
Firing Orientation	Horizontal or vertical.												
Air, Gas, Pilot Orientation	Air inlet, gas inlet, and pilot orientations required when ordering.												
Packaged Burners	Packaged burners available including valve trains, combustion air blowers, flame supervision and controls.												
NOx Emissions	Depend on chamber design and temperature; with NG firing NOx than 80 ppm at 3% O ₂ are achieved.												

The stainless steel gas burner is mounted coaxially with the atomizer and oil gun assembly, in the case of combination firing, or coaxially with tail gas gun in case of waste incinerators.

The final assembly is then finished with a higher temperature paint. The combustor refractory can be installed at shop or directly on site.

