

# ITAS Intensityflame

## Multifuel and high power burner



Plug and play solutions to reduce commissioning time

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### Features

- Applications: any heating process
- From 1MW up to 55MW
- Can operate with natural gas, propane, butane and other mixed gases

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ITAS Intensityflame is a high intensity burner which operates at maximum efficiency firing natural gas, propane, butane, tail gas or other mixed gases.

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ITAS Intensityflame burner can operate from 1 up to 50 MW. Low pressure combustion air is used with all sizes. All units are available as complete packaged units or basic burners.

#### TYPES OF APPLICATIONS

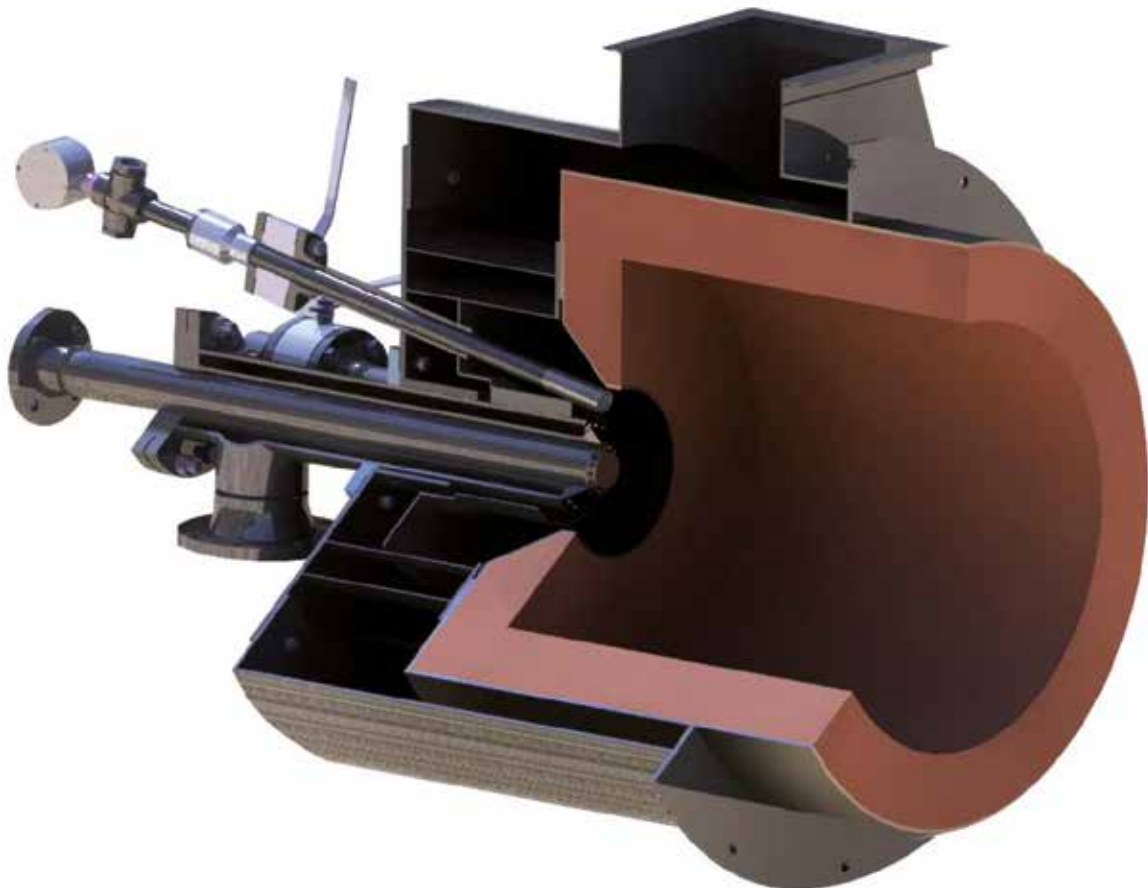
ITAS Intensityflame burner can adapt to any heating process, like:

- industrial and marine boilers
- combination waste heat boilers and liquid or gaseous incinerators
- steam generators
- crude heaters
- process heaters and superheaters
- process air heaters

#### DESIGN FEATURES

The main parts of ITAS Intensityflame burner are wind box, air volute and combustor. The combustion air is rapidly rotating and swirling as it leaves the volute end cone and enters the combustor.

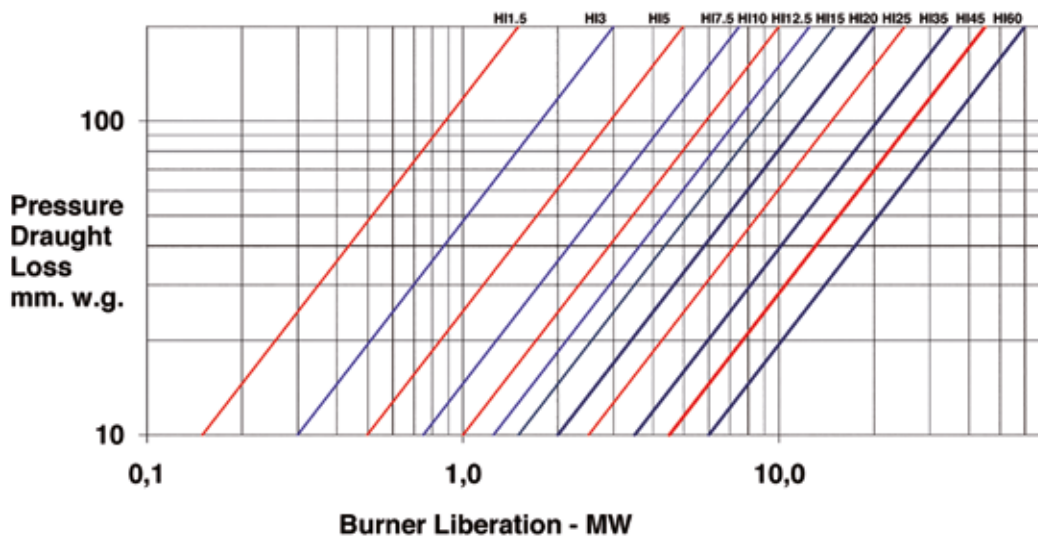
The burner is mounted coaxially with gas gun. The final assembly is then finished with a higher temperature paint. The combustor refractory can be installed on site.

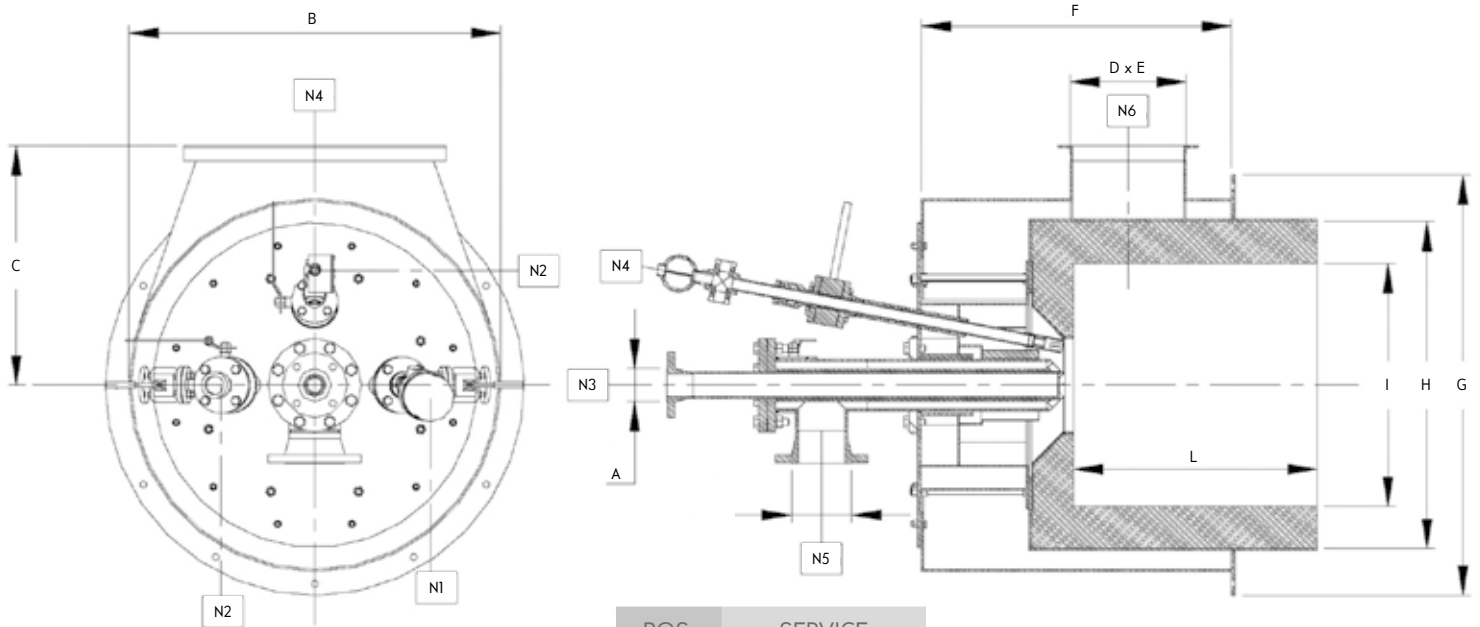


OPERATING CONDITIONS

Parameter	Specifications											
	Burner model											
	V6	V8	V10	V12	V14	V16	V18	V22	V24	V28	V32	V36
Max heat liberation (MW)	1.5	2.8	4.5	6	8.5	11.5	14.5	20.5	23.5	33	42	55
Min heat liberation (MW)	0.1	0.2	0.3	0.4	0.6	0.8	1.1	1.5	1.8	2.4	3.1	4.1
Flame length/diam. (mm)	1,500 750	1,800 800	2,100 900	2,400 1,000	2,750 1,200	3,050 1,350	3,350 1,500	4,000 1,650	4,300 1,750	4,900 2,000	5,200 2,200	6,100 2,500
Fuels and gases	Natural, propane, butane, manufactured and other mixed gases											
Flame detection	UV or infrared scanner											
Pilot	Raw gas pilot. Natural gas or propane											
Preheated combustion air	260°C maximum. Burner sizing recommendations with preheated air upon request											
Burner type	Short 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 Other fuels upon request										
	Combi	Double gun for dual gas operation										
Firing orientation	Horizontal or vertical											
Packaged burners	Packaged burners available including valve trains, combustion air blowers, flame supervision and controls											
NOx emission	Depending on chamber design and temperature; level less than 100 ppm at 3% O <sub>2</sub> with NG firing NO <sub>x</sub> Co less than 150 ppm at 3% O <sub>2</sub>											

**BURNER SIZING CURVES FOR HIGH INTENSITY BURNER**





POS.	SERVICE
N1	UV SCANNER
N2	SIGHT PORT
N3	FUEL GAS INLET
N4	IGNITION PILOT
N5	TAIL GAS INLET
N6	AIR INLET

Model	Dimensions (mm)									
	A	B	C	D	E	F	G	H	I	L
V- 6	1-1/4"	737	457	298	337	476	864	610	406	368
V- 8	2-1/2"	864	527	229	533	635	991	762	533	559
V-10	3"	1,016	622	305	635	832	1,143	889	660	673
V-12	3"	1,143	711	381	711	978	1,270	991	762	762
V-14	3"	1,321	813	457	813	1,187	1,473	1,143	914	889
V-16	4"	1,448	889	533	914	1,334	1,600	1,270	1,041	965
V-18	4"	1,626	991	622	1,016	1,537	1,778	1,397	1,168	1,092
V-22	4"	1,905	1,181	762	1,194	1,842	2,057	1,626	1,397	1,270
V-24	6"	2,032	1,245	838	1,270	1,969	2,184	1,702	1,473	1,334
V-28	6"	2,388	1,473	978	1,499	2,324	2,540	2,032	1,727	1,524
V-32	8"	2,642	1,651	1,143	1,651	2,604	2,794	2,235	1,930	1,676
V-36	8"	2,997	1,880	1,308	1,880	2,972	3,150	2,489	2,184	1,880