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ITAS Speedflame

Medium velocity low emission burner

Plug and play solutions to reduce commissioning time

Features

- Applications: tunnel ovens, combustion chambers of VOC abatement systems, metallurgical ovens for metal heat treatment
- From 100 kW to 1,700 kW
- Can operate with large air excess or in gas excess
- Can operate with natural gas, LPG or other types of fuel gas upon request

ITAS Speedflame is a medium velocity gas burner for tempered air with a heating capacity from 100 kW to 1,700 kW.

ITAS Speedflame is designed to obtain gas and air mixing at the nozzle in order to produce a strong jet of hot gases which enter into the oven.

Such a jet permits the circulation inside the oven, hence the uniform heat distribution and heat transfer to the products to be treated, with many benefits such as gas product quality, fuel saving and general system efficiency.

ITAS Speedflame offers a wide turndown ratio.

According to oven size and desired temperature, the jet of hot gases may reach velocity up to 70 m/s.

Thanks to its optimum flame stability, obtainable in any burner operating conditions, ITAS Speedflame allows flexible and safe combustion:

— Stoichiometric operation, with turndown range higher than 1:20
— Air excess up to 950% (with minimum fuel supply)
— Fuel gas excess up to 80% (with maximum air supply)

ITAS Speedflame may operate either with natural gas or LPG by simply replacing the injection nozzle. ITAS Speedflame can operate with other types of fuel gas upon request.

TYPES OF APPLICATIONS

— Tunnel ovens
— Intermittent ovens for ceramics and tile industry
— Combustion chambers of VOC abatement systems
— Metallurgical ovens for metal heat treatment (hardening, drawback, annealing, etc.); for example, a combined process of steel piece hardening with stoichiometric operation up to 1,000 °C, followed by drawback to 600 °C and cooling in air excess conditions

PERFORMANCE PER MODEL

Model	Performance with natural gas and stoichiometric ratio					
	Max. power capacity (kW)	Combustion air (λ=1) (Nm^3/h)	Fuel gas (Nm^3/h)	Max. air pressure (mbar)	Max. gas pressure (mbar)	Flame length (mm)
MV/8	190	192	19	27	25	900
MV/10	440	445	44.5	40	43	1,400
MV/16	900	910	91	15	27	1,400
MV/24	1,700	1,720	172	75	65	2,200

A higher turndown ratio can be reached with a burner staging. Other gas types upon request.

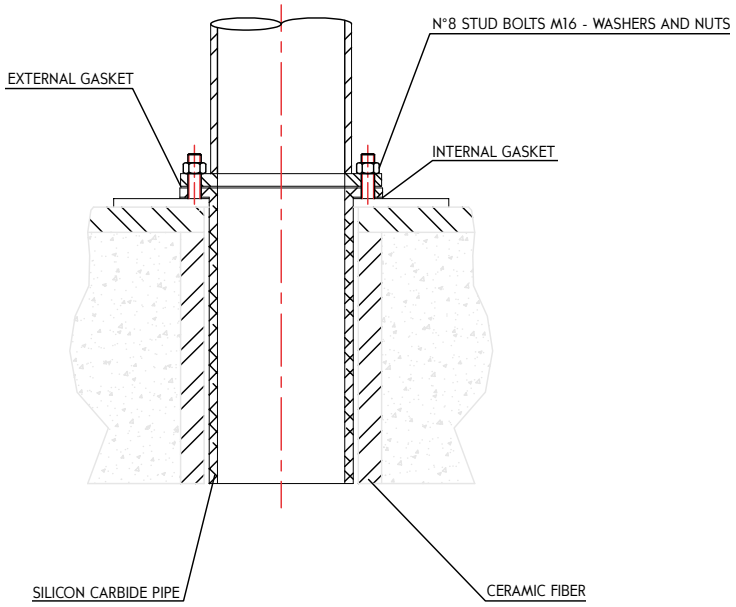
TECHNICAL FEATURES

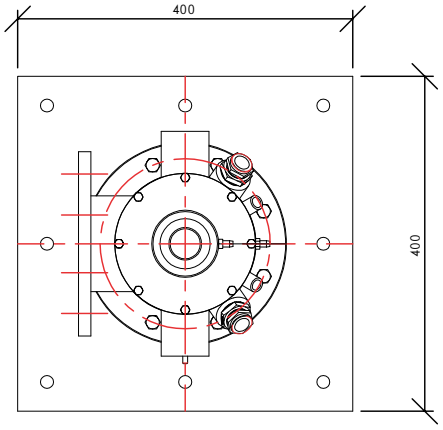
ITAS Speedflame consists of a cylindrical body and:

— Front flange for the application of air/gas supply and mixing subgroup
— Side threaded nozzle to be connected to air supply source
— Radial threaded couplings for spark plug and flame detection device (electrode)
— Inclined couplings for sight glass or UV scanner
— Four threaded couplings for measurement instruments
— Flange for connection to oven wall thanks to a specific plate to hold either a combustion pipe or a combustion block (muffle)

ITAS Speedflame may be installed in 2 different ways:

— With silicon carbide pipe, applied through special gaskets on a specific plate that fits on oven wall, for temperatures up to 1,260 °C
— With a combustion block (muffle) made of refractory material applied on a specific plate that fits on oven wall





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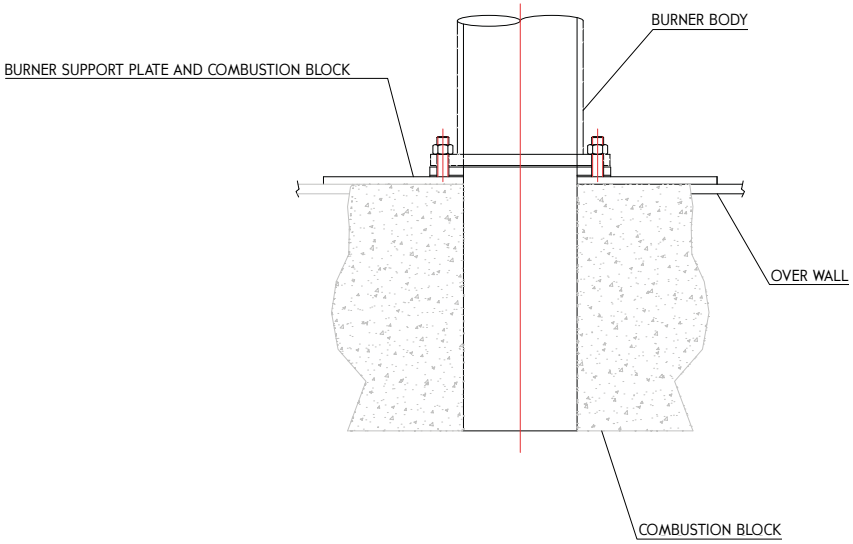

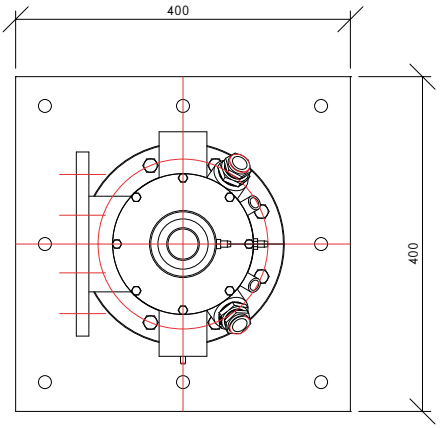

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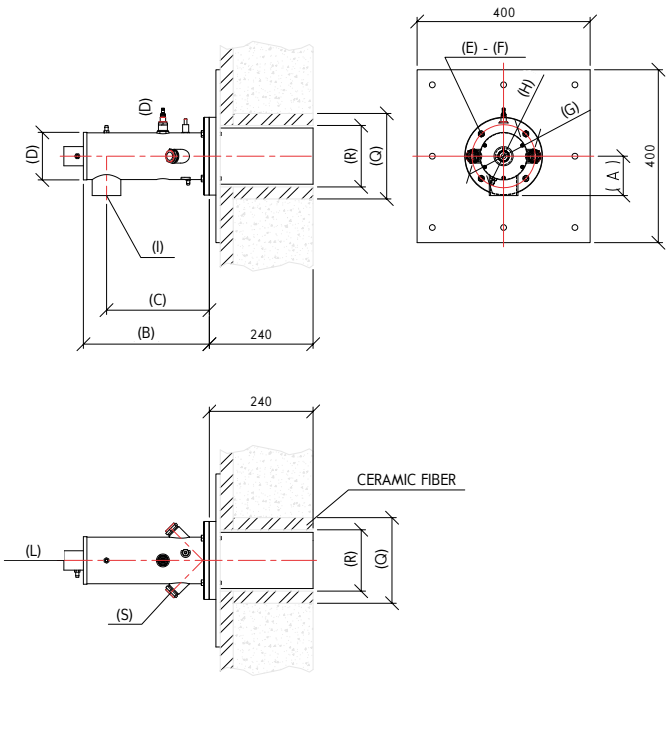
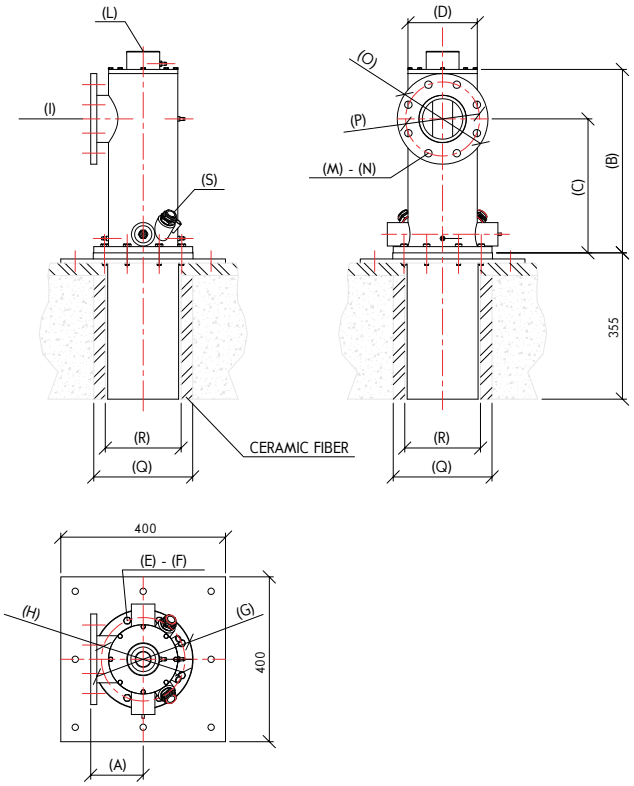


ITAS SPEEDFLAME MV 8/10



ITAS SPEEDFLAME MV 16/24

DIMENSIONS

Model	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R	S
	mm	mm	mm	mm		Diam. mm	mm	mm	Air inlet inch	Gas inlet inch		Diam. mm	mm	mm	mm	mm	Uv port inch
MV/8	91	335	238	110	4	11	180	146	2	1	/	/	/	/	120	100	¾"
MV/10	91	335	238	110	4	11	180	146	2	1	/	/	/	/	120	100	¾"
MV/16	128	435	325	170	9	12	240	203	4	2	8	18	220	180	240	184	¾"
MV/24	128	435	325	170	9	12	240	203	4	2	8	18	220	180	240	184	¾"

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