

#### **Datasheet - Metric**

# **ITAS DUCTFLAME-L BURNERS**

Parameter	Value
Nominal gas input per 150 mm module [kWlhv]	315
Fuels	Natural gas, Propane (Contact Fives ITAS S.p.A. for other gas options)
Turndown gas	10:1
Gas inlet pressure [mbar]	Natural gas - Italian: 453
(See chart 1 at page 2)	Natural gas – Russian: 384 Propane: 156
Combustion air per 150 mm module [Nm <sup>3</sup> /h]	150
Turndown air	1:1 (= fixed air)
Combustion air Inlet pressure [mbar] (see chart 2 at page 2)	30
Combustion air temperature [°C]	Up to 300
Upstream process air temperature [°C]	Up to 750
Downstream process air temperature [°C]	Up to 1200
Process air pressure drop [mbar]	0,8 to 1,2
Ignition	Pilot ignition (Interrupted pilot)
Pilot	Capacity [kWlhv]: 25
	Air flow [Nm <sup>3</sup> /h]: 35
	Air pressure [mbar]: 12
	Gas pressure [mbar]: 80
Flame Monitoring	UV scanner
Flame length [mm] (at nominal input)	3000
Emissions estimates [mg/Nm3 @ 17% O2]	On request
Weight [kg]	On request

Notes:

- All data are based on net calorific values = lhv
- All information is based on common practice for gas and air pipe design. If support is needed, contact Fives ITAS S.p.A.
- Ductflame-L burners operate at 50% combustion air. The remaining Oxygen is taken from the process.
- All inputs are based on laboratory testing at neutral chamber conditions
- Natural gas Italian: Ihv = 9,5 kWh/Nm<sup>3</sup>; d=0,6
- Natural gas Russian: lhv = 9,97 kWh/Nm<sup>3</sup>; d=0,56
- Propane: lhv 26,3 kWh/Nm<sup>3</sup>; d=1,58

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## **1. OPERATING AREA**

The grey area shows the operating area of ITAS Ductflame-L burners. If the relation between incoming process air temperature and oxygen level lies in the purple area, ITAS Ductflame-F is a possible solution.



#### 2. GAS PRESSURE DROP



Differential pressure should be taken between gas inlet flange and the process chamber

Note: Pressure drop curves should be used as an indication for setting up burner. It is recommended to use fuel flow measurements to determine actual fuel flows.

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### 3. COMBUSTION AIR PRESSURE DROP

Below chart is based on an amount combustion air fixed at 150 Nm<sup>3</sup>/h. Differential pressure should be taken between air inlet flange and process chamber.



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