

## Datasheet - Metric

# ITAS INTENSITYFLAME BURNERS

## MODEL IF0420-GAS

Parameter	Value
Maximum Capacity input [kWlhv] (Air pre-heating limits the maximum capacity)	42000
Minimum Capacity input [kWlhv]	3100
Fuels (Contact Fives ITAS S.p.A. for dual gas or oil options)	Natural gas, propane, butane, mixed gases (Contact Fives ITAS S.p.A. for using special gases)
Pressure drop gas gun [mbar] (maximum capacity)	Natural gas: 102,4 Propane: 41,2
Nominal combustion Air Inlet [Nm <sup>3</sup> /h]	50400
Air inlet pressure [mbar] (At nominal input, 20°C)	21,8
Lambda [-]	1,2 to 1,7
Combustion air temperature [°C]	Standard <20 On request <300
Fuel guns	Single - Gun for single gas Double - Gun for dual gas
Combustor options	Alloy (AISI 310) Refractory (83% alumina air bond)
Maximum chamber temperature [°C]	Alloy combustor: 600 (@ Lambda 1,4) Refractory combustor: 900
Flame dimensions [mm] (Measured from outlet of combustor)	Length 6100 Diameter 1900
Ignition	Raw gas pilot, natural gas or propane
Pilot	Capacity [kW]: 420 Gas pressure NG [mbar]: 30 Gas pressure Propane [mbar]: 12,5
Flame Monitoring	UV scanner or Infrared scanner
Emissions	On request
Mounting position	Horizontal Vertical up Vertical down (use a continuous fan operation)
Weight [kg]	Burner with alloy combustor: 1200 Burner with refractory: 2450

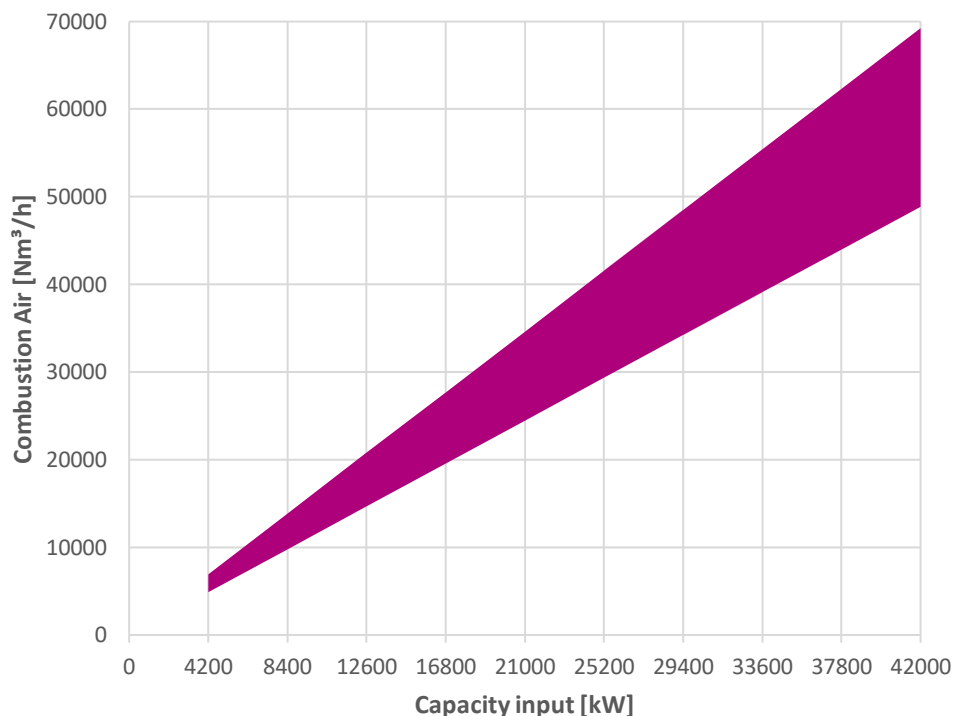
### Notes:

- 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 please contact Fives ITAS S.p.A.
- All inputs are based on laboratory testing at neutral chamber conditions
- Natural gas: lhv = 9,97 kWh/Nm<sup>3</sup>; d=0,56
- Propane: lhv 26,3 kWh/Nm<sup>3</sup>; d=1,58

1/4

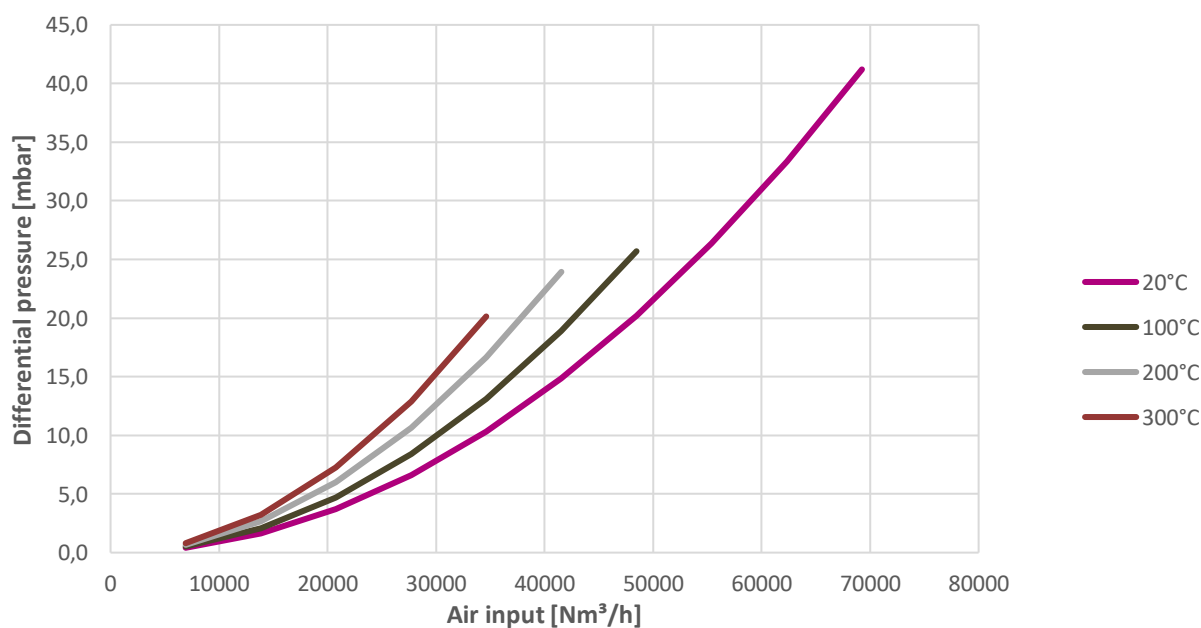
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## 1. OPERATION CURVE (AMBIENT COMBUSTION AIR)



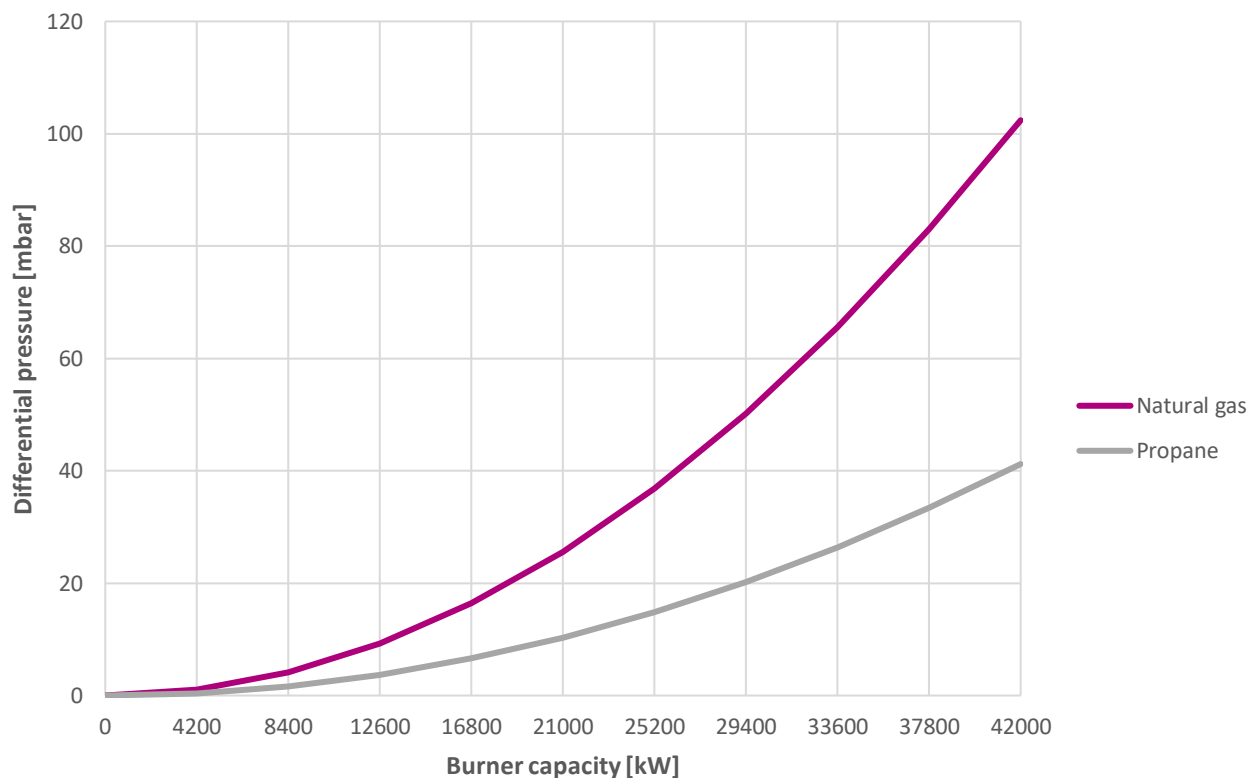
## 2. COMBUSTION AIR PRESSURE DROP

Pressure drop should be taken between the chamber and windbox pressure tap (tap B)



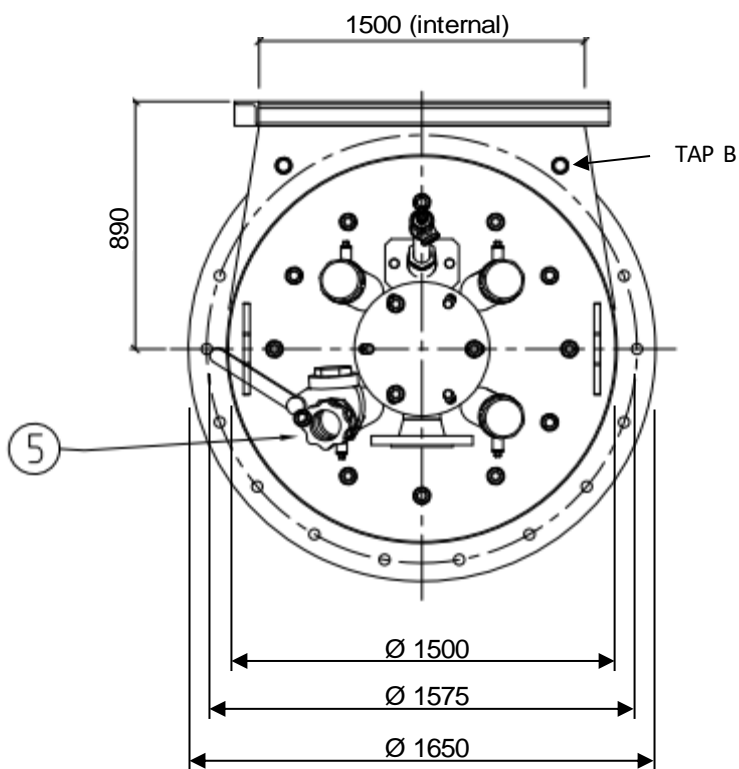
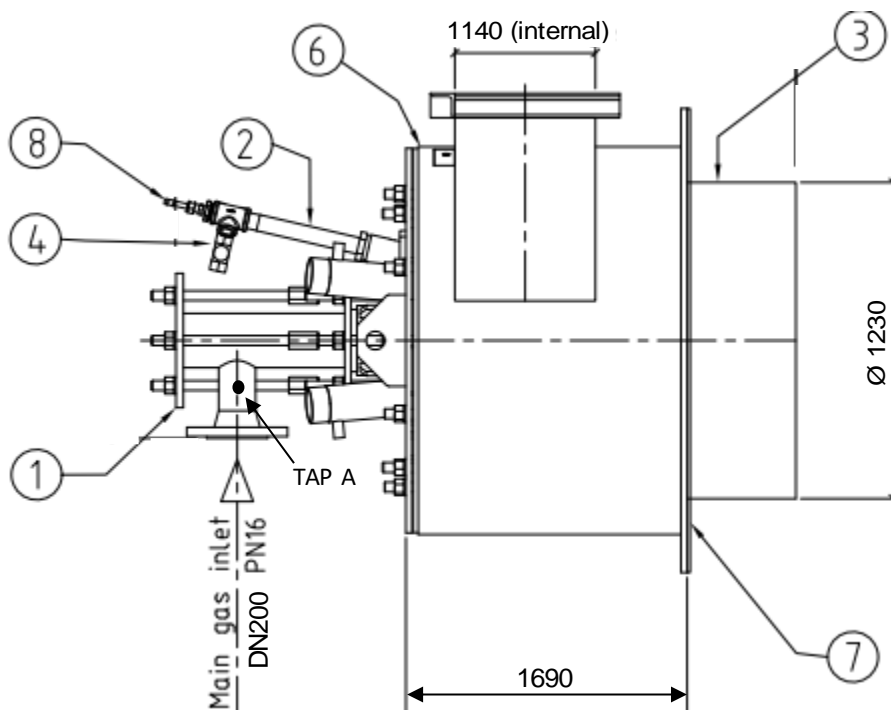
### 3. GAS GUN PRESSURE DROP

Pressure drop should be taken as differential between the chamber and gas gun pressure tap A.



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

## 4. DIMENSIONS



Pos	Description
1	Gas gun
2	Pilot burner
3	Combustor (refractory/alloy)
4	Pilot gas adjusting tee
5	Sight glass with valve
6	Burner body
7	Burner gasket
8	Ignition spark rod

4/4

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