

ITAS DRYFLAMEPACK MODEL DFP05

TECHNICAL DATASHEET (METRIC)

| Basic burner parameters | Value |
|--|---|
| Maximum Capacity input [kW _{lhv}] | 500 |
| Minimum Capacity input [kW _{lhv}] | 20 |
| High fire combustion air [Nm ³ /h] | 605 ($\lambda = 1,2$) |
| Air pressure at burner inlet [mbar] | 10 |
| Flame dimensions [mm] (Measured from outlet of combustor) | Length: 900 Diameter: 200 |
| Gas and air control | On ratio via integrated gas- and air control valves |
| Ignition | Direct ignition by spark rod |
| Installation position | Horizontal |
| Burner model | ITAS DF0500 |
| Weight burner with valves and combustor [kg] | 22 |

Notes:

- All data are based on net calorific values = lhv
All information is based on common practice for gas and air pipe design.
Contact Fives ITAS S.p.A. for any further support.
- All inputs are based on laboratory testing at neutral chamber conditions
- Natural gas: lhv = 9,97 kWh/Nm³; d=0,56
- Propane: lhv = 26,3 kWh/Nm³; d=1,58

Burner configuration options:

| Fuel options | N: Natural gas | L: LPG |
|---------------------------------------|----------------|--------|
| Nozzle selection | Natural gas | LPG |
| Factory settings gas – and air valves | Natural gas | LPG |
| | | |

| Combustor options | S: Standard Alloy | E: Extended Alloy |
|-----------------------|-------------------|-------------------|
| Combustor length [mm] | 220 | 320 |
| Diameter [mm] | 204 | 204 |
| Material | AISI 310 | AISI 310 |

| Flame supervision options | I: Ionization rod | U: UV-interrupted | U: UV-continuous |
|----------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Connection on burner body [inch] | 3/4 | 3/4 | 3/4 |
| Model | ITAS standard | QRA10 | QRA73 |
| Voltage [V/Hz] | 110 (50/60 Hz) or 230 (50/60 Hz) | 110 (50/60 Hz) or 230 (50/60 Hz) | 110 (50/60 Hz) or 230 (50/60 Hz) |

Combustion air configuration options:

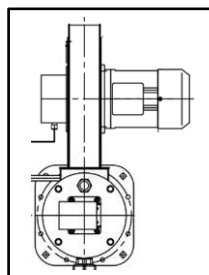
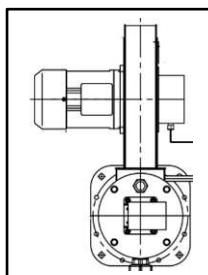
The blower selection depends on a variety of choices to be made:

Position of the combustion air inlet to the burner and the position of the blower motor.

T: Combustion air inlet on top

L: Motor left

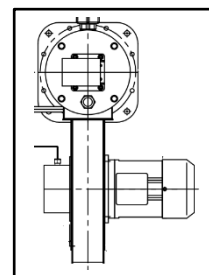
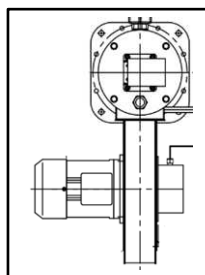
R: Motor right



B: Combustion air inlet on bottom

L: Motor left

R: Motor right



| Fan supply voltage | Backpressure: -5 to 1.5 mbar | Max 5 mbar |
|--------------------------------|---------------------------------|------------|
| 16: Single-phase 110 V - 60 Hz | VAP282 | VAP302 |
| 25: Single-phase 230 V - 50 Hz | VAP282 | VAP302 |

| Blower properties | VAP282 | VAP302 |
|----------------------------|--------------------------|--------------------------|
| Motor power [kW] | 0,55 | 0,75 |
| Protection grid | Standard | Standard |
| Cylindrical Filter | Optional (replaces grid) | Optional (replaces grid) |
| Air switch setting [mbar]* | 5 | 5 |
| Weight [kg] | 16 | 21 |

Notes:

* Based on neutral chamber conditions

Gas train configuration options:

All gas trains are designed to meet IP54 protection class and up to 350 mbar inlet pressure. The installation direction of the gas train is related to the blower motor installation. Motor left is gas train left and motor right is gas train right.

A packaged gas valve train consists of:

- Manual ball valve
- Compensator
- Manometer
- Minimum gas pressure switch
- GasMultiblock (type: MB-DLE) with dirt trap, double safety shut of valves and pressure reducer
- Maximum gas pressure switch

The selection of the gas train components is a result of the multiple selections made; such as fuel type and auxiliary supply voltage.

| Fuel options | N: Natural gas | L: LPG |
|-----------------------------------|------------------|------------------|
| Gas pressure at valvetrain [mbar] | 50 to 350 | 50 to 350 |
| Gas train connection [inch] | 1 | 3/4 |
| Max. gas switch setting [mbar]* | 60 | |
| Min. gas switch setting [mbar]* | 10 | |
| Voltage [V/Hz] | 110/60 or 230/50 | 110/60 or 230/50 |
| Weight gas valve train [kg] | ~6 | ~3,5 |

Notes:

* Based on neutral chamber conditions

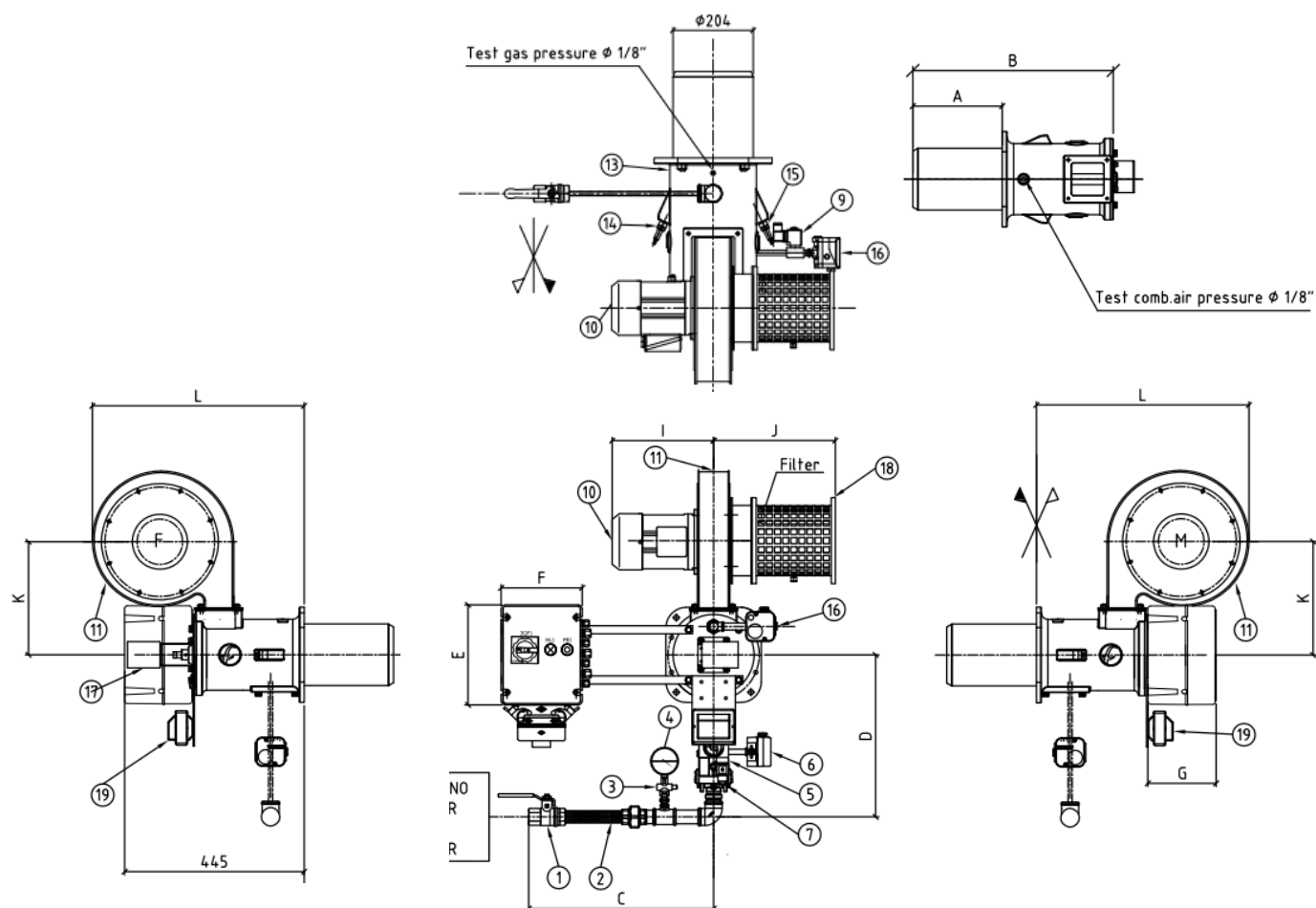
Burner Management configuration options:

| | Basic BMS | | Programmable BMS | |
|-----------------------------|--|-----------------|--|------------|
| Operation | Interrupted | | Interrupted | Continuous |
| Burner relay | LME21 | | LME73 | LME75 |
| Flame scanner | Ionization | | Ionization or UV | |
| Failure messaging | No | | Display | |
| External setpoint | Client signal directly to servomotor | | Burner relay receives either 4-20mA or 3-pnt step or 0-10v from client | |
| Signal to the control-motor | 3-pnt step to SQN31 | 4-20mA to SQM4x | 3-pnt step signal from burner relay to SQN31 motor | |
| Manual/ remote switch | No | | Yes | |
| Panel installation | On burner (Plastic box) | | Junction box (Plastic) on burner + Panel (steel) for wall installation <i>(including 5m cable and connector)</i> | |
| Temp. limit switch | No | | Optional | |
| Space reserve | No | | 10% <i>(when no high temp switch)</i> | |
| Burner on/off switch | No | | Yes | |
| Signal lamps | Single lamp burner “failure/ in operation” | | Separate lamps for “burner failure” and “burner in operation” | |
| Weight [kg] | ... | | 20 | |

For all panels:

- Completely pre-assembled and tested
- Ignition transformer is supplied with the panel (installed on support outside the panel)
- Available for supply voltage 110V/60Hz or 230V/ 50Hz
- Protection class is IP54
- Language on name plates is English
- System purging by client
- Excluding leak test
- No flame signal indication
- No wiring numbering
- Including main switch
- Including reset button
- Including blower motor starter

DIMENSIONS



| Combustor | Standard | Extended |
|-----------|----------|----------|
| A | 220 | ... |
| B | 555 | ... |

| Fuel | NG | LPG |
|------|-----|-----|
| C | 455 | 400 |
| D | 430 | 400 |

| Panel | LME21 | LME7* |
|-------|-------|-------|
| E | 247 | 400 |
| F | 200 | 300 |
| G | 168 | 200 |

| Blower | VAP282 | VAP302 |
|--------|--------|--------|
| I | 258 | 355 |
| J | 307 | 307 |
| K | 300 | 340 |
| L | 545 | 615 |

| Pos. | Instrumentation list |
|------|-----------------------------------|
| 01 | Ball valve |
| 02 | Flexible/ compensator |
| 03 | Manometer valve |
| 04 | Manometer 0-600 mbar |
| 05 | Double safety shut-off |
| 06 | Max. gas pressure switch |
| 07 | Min. gas pressure switch |
| 08 | Gas pressure regulator |
| 09 | 3-way solenoid valve |
| 10 | Electric motor |
| 11 | Combustion air fan |
| 12 | Combustor tube |
| 13 | ITAS Dryflame burner head |
| 14 | Spark plug |
| 15 | Flame rod |
| 16 | Combustion air pressure switch |
| 17 | Servomotor for gas/air regulation |
| 18 | Combustion air filter |
| 19 | Ignition transformer |

* LME 7 panel is supplied as loose part including cable and connector. Components are wired to a terminal strip installed in a box (same sizes as LME21 box)