



## BIOGAS FLARE

### Enclosed High Efficiency – Mod. HE

#### DESCRIZIONE

This type of flare is designed in order to obtain a high combustion efficiency and thus obtain values of CO and NOx downstream of the combustion, very low and traceable through dedicated nozzle accessible from outside.

The high efficiency flare consists of a burner installed at the base, equipped with a high-energy ignition Pilot and a flame detection system via UV scanner.

The combustion air is conveyed by means of an automatic damper which by means of a Thermocouple immersed into the combustion chamber zone, automatically modulates the appropriate air flow, ensuring the constant combustion temperature up to a maximum of 1.200 °C (visible and adjustable from control panel).

The supporting structure is composed of a vertical combustion chamber, internally coated with ceramic fiber and specially sized to ensure appropriate residence time of the gas inside the combustion chamber.

The ignition system is automatic type, operated by the electrical panel installed at the bottom side of the flare and initially involves the pilot's ignition and subsequently the opening of the main Biogas valve.

This Biogas Flare, unlike the elevated type, develops an influential radiation value at ground, since the flame is fully contained within the combustion chamber.

This model also allows a suitable combustion even in the presence of very low amounts of methane in the Biogas (from 25% to 70% in volume and with a Turn down 5:1).



#### SITE UTILITIES

|                                          |                  |        |
|------------------------------------------|------------------|--------|
| Power supply                             | Volt             | 400    |
| Auxiliary circuits Power                 | Volt             | 230-24 |
| Frequency                                | Hz               | 50     |
| Electrical Insulation (Local Panel)      | Gr.              | IP54   |
| Electrical Protection (Field equipments) | Gr.              | IP65   |
| Instrument Air (Wet, without Oil)        | bar <sub>g</sub> | 6      |

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## DESIGN CODES

- ✓ Direttiva Macchine 2006/42/CE
- ✓ D.Lgs.81/2008 e s.m.i.
- ✓ CEI EN 61349-1
- ✓ EN 60079-1
- ✓ Direttiva 2014/34/UE
- ✓ Direttiva 2006/95/CE
- ✓ IEC 60038
- ✓ IEC/EN 60204
- ✓ CEI EN 60079-10-1:2016 Classificazione luoghi ATEX gas

## SUPPLIER DATA

|                                                       |     |                          |
|-------------------------------------------------------|-----|--------------------------|
| Model                                                 |     | <b>HE</b>                |
| Type                                                  |     | Enclosed High Efficiency |
| Total Height (from ground)                            | ml. | 4 > 12                   |
| Type of support                                       |     | Selfstanding             |
| Gas Pipe Material                                     |     | Aisi 304                 |
| Combustion Chamber Material                           |     | CS                       |
| Burner Material                                       |     | Aisi 316/310             |
| Air Damper Material                                   |     | Aisi 304                 |
| Inlet Flange                                          |     | ANSI B16.5 - 150#        |
| Flame Detector                                        |     | UV Scanner               |
| Internal Insulation                                   |     | Ceramic Fiber            |
| External Insulation (Only in the Top parts lg. 1 ml.) |     | Aisi 304                 |