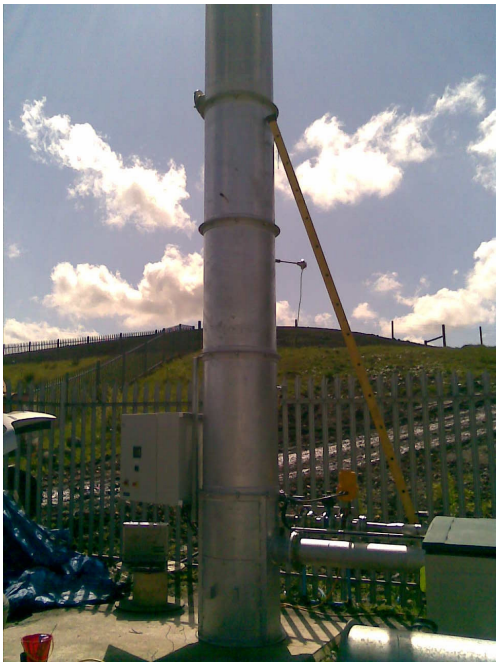
Product Data Sheet

Part number:- BGAK Vent Air Burner (VAB)

The Vent Air Burner (VAB) has been developed specifically, in conjunction with a flare manufacturer, to be used with the BGAK range of automatic siloxane filters. Although in many applications the condensate stack, used to condense the Siloxanes and VOC's out of the regeneration air, is the correct solution, there are sites that may be in sensitive locations or be unable to utilise the necessary length of condensing pipework that feeds the stack.
Additionally some sites that require more than one regeneration per 24 hours, may be unable to utilise the cooling effects of the night ambient air to aid condensation of VOC's and thus require an additional method of removing contaminants from the regeneration air.

Product features

- Small footprint
- Fully enclosed compliant flare
- Eliminates Odours/ and Decomposes VOCs
- High temp operation (~ 1000 Deg C)
- Utilises BioGas to fire Main burner / pilot
- Low ongoing running costs
- Fully integrated into PpTek control system
- Totally automatic control.
- Low maintenance requirement
- Known BAT for compliance and EA approval
- Can be sited close to filter system.
- Easily erected with sectional construction



VAB being installed near Manchester, UK

Product description

The VAB is a fully integrated option for any of the PpTek BGAK filter range. Manufactured in 5 sections and standing 6m high it is made from hot dipped galvanised mild steel (base section) and stainless steel (above burners). Being totally enclosed and insulated it is fully compliant with current regulations, with low fuel consumption staying below the site monitoring limits.

The VAB is fed regeneration air directly from the filter and requires a small main BioGas boosted site supply. The pilot light is auto lit from the PpTek filter system with the main burners being regulated to ~ 1000 ºC via an industry standard modulating controller. Start up and shut down are controlled via the PpTek unit with temperature, flow and flame lit sensors providing safety controls.

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Product characteristics

1 Physical properties

1.0 Size:- BGAK 600 - 4000

6m High

1.2m Diameter (outside)

Flanges air PN 10- DN200

Gas supply PN 16- DN50

Condensate drain 1" BSP socket

Fixing 8 x Chemi –fix studs

2 Regeneration Air Capacity

2.0 Max 800 M3/hr.

2.1 Assumed zero calorific value .

2.2 Regeneration air > Ambient temp

3 Gas input requirements

3.1 Gas flow Min 30 M3/hr

3.2 Gas flow Max 100 M3/hr

3.3 Gas pressure required Min 60mb

4 Heat insulation

4.1 Top burner section insulated with proprietary refractory material.

5 Electrical system

5.1 Separate mounted panel outside zone connected to VAB by cable trunking.

5.2 240 VAC – 15 amp (from PpTek filter)

5.3 All spark sources Ate approved / ISB protected.

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6 Safety controls fitted

6.1 Temperature sensors / controllers.

6.2 Flame lit sensor.

6.3 * Air flow detection on regeneration unit.

6.4 * Auto restart after power failure.

6.5 Flame arrestor to air pipework.

6.6 * Temperature resilient bubble tight valves.

6.7 Valve position indicators

6.8 Pneumatically operated actuators via ATEX approved solenoids with limit / position switches

6.9 * Unit default on error is system bypass.

* Integrated within PpTek filters systems

7 On site requirements

7.1 Concrete base - TBA

7.2 Air supply pipe diameter of 200mm

7.3 Gas feed pipe diameter of 100mm

7.4 Electrical supply 240 VAC single phase 15 Amp (from PpTek panel)

7.5 Compressed air min 5 bar (from PpTek filter)

8 Total energy requirements

8.1 Min average consumption for 3 - 4 hr /day

8.2 BioGas consumption 30 – 100 m3/hr site, filter and calorific value of regeneration air dependent

9 Emissions conformity

9.1 Conforms to flare requirements for Nox, TOC and CO