



# GAS PUMPING SETS

## *Fuel-skids for power generation*

The absolute requirement for a fuel skid is long-term reliability.

Units designed, manufactured and supplied by Organics employ tried and tested technology for landfill gas pumping applications where unnecessary downtime has immediate ramifications in terms of revenue generation and, it is fully recognised, must be avoided.

It is now well acknowledged that landfill gas is a unique fuel. It possesses characteristics that are not matched by any other similar fuel gas, such as natural gas or biogas from anaerobic digesters. For this reason a landfill gas fuel skid must be built specifically for this application. Of particular note are the high-levels of moisture drop out and the possibility of a wide range of potentially corrosive trace gases. These range from halogens to ammonia and mercaptans.



## KEY FEATURES

HIGH-RELIABILITY GAS PUMPING SETS

OPTIONAL AIR BLAST COOLING AND REFRIGERATED CHILLING FOR DEW-POINT MANAGEMENT

SITE-SPECIFIC DESIGN

AUTOMATIC MOISTURE REMOVAL SYSTEMS FOR COLLECTED CONDENSATE

OPTIONAL SPEED CONTROLLERS FOR PRESSURE AND FLOW FINE TUNING AS WELL AS POWER SAVING

A RANGE OF MATERIALS TO SUIT SPECIFIC APPLICATIONS

DESIGN AND SPECIFICATION SERVICES AVAILABLE

INTEGRATED CONTROL SYSTEMS WITH FACILITIES TO LINK INTO MAIN CONTROL CENTRE



## SPECIFICATION DATA

### Flow rates available:

50 to 20,000 cubic metres per hour

### Materials:

Standard materials are based upon hot-dip galvanised carbon steel. Optional stainless steel and high-grade alloys are also available

### Suction pressure head:

Suction pressure rarely needs to exceed 150 mbar although deep-vacuum systems may be accommodated.

### Delivery pressure head:

Delivery pressures of 300 to 600 mbar g are normally achieved with twin-stage centrifugal blowers. Higher pressure heads, of up to 200 bar g, may be achieved with screw compressors, rotary vein compressors and multi-stage reciprocating compressors.

### Temperature control:

When a gas is compressed its temperature will rise. Where a maximum temperature forms part of the gas quality specification cooling may be accomplished with air-blast cooling and/or refrigeration systems. (See Datasheet ODSG07) These latter may also be employed for control of relative humidity.

### Safety features:

All equipment is built to the applicable international standard for the use of electrical equipment in potentially hazardous areas. Flame arresters are employed for flash-back prevention. Where appropriate, powered slam-shut valves will be employed for automatic emergency isolation.

The scope of supply for Organics gas-pumping sets includes a skid mounted package of equipment. Each gas booster is normally mounted on an individual skid. These may also be located within individual GRP housings.

By skid mounting the unit, and carrying out final assembly on site, it is possible to carry out pre-delivery tests in our factory. This ensures that equipment arriving on site is tested and ready for rapid installation and commissioning. Units may also be made available for factory inspection and testing by a representative of the Client prior to delivery to site.

The standard scope of supply will include the following key components:

- Gas blower. Our preference is boosters with back-swept blades that will not surge at low flows. Pressure heads are designed to suit individual applications.
- Condensate knockout pot complete with demisting filter and level switching.

- Flame arresters on the inlet and outlet of the gas blower
- Facilities for pressure control to the point of use.
- Optional addition of a low or ultra-low emissions flare for continuous relief flaring
- Optional addition of an elevated candlestick flare for site trials and temporary flaring
- Standard instrumentation such as pressure, temperature and flow measurement devices
- Specific instrumentation such as a temperature transducer to detect a flashback at the flame arrester and a motor mounted thermistor to detect overheating
- A range of optional devices such as gas analysers and Internet connection facilities for on-line monitoring are also available.

Gas-pumping units manufactured and supplied by Organics have a well-established record in providing landfill gas to generators with up times in excess of 99%. For further information please contact our Technical Sales Department.



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