

LANDFILL GAS

ENCLOSED FLARE UNITS

The **GF10 range** fully comply with the latest and stringent emission standards within EU, including TA Luft and UK's Environment Agency whilst minimize energy requirement. A PLC continues monitor the optimum combustion temperature automatically regulating forced air draught in the fuel/air mixture in the combustion chamber. Cyclonic burner provides residence time >0.3 sec. This results combustion temperatures between >1.000°C up to 1.250 °C thus results to low emissions. The **GF10 range** comes in various flow rates starting from as low as 50 m3hr1 through up to 6000 m3hr1.

Also the **GF10 range** may in different configurations be used as part of a Utilization project, Containerized, Single or Twin stage blowers, Duty-Standy or Duty-Duty.

Downstream of the booster:

Inlet flange with manual lever operation isolation valve
Vacuum pressure & temp gauge
Gas sample port, , flow indicator manometer or digital read-out.
Galvanized Condensate knockout pot
Polypropylene demister element,
Pressure gauges across the demister
High condensate level switch
HDPE condensate drain lance and liquid seal vessel

Gas Booster:

Centrifugal blower, in mild or stainless steel, ATEX compliant,
Direct drive, Star-Delta starting.
"Motor trip" automatic cut out function onto the control panel.

Upstream of the booster:

Fan outlet pipe c/w vacuum pressure & temp gauge
Gas sample port, Anemometer inlet
Manual lever operation burner control valve
Pneumatic operated safety shut-off valve
Deflagration ATEX flame arrester
Provided with pressure gauges and temperature sensor
Pilot burner gas train

Flare Stack:

High temperature stainless steel burner
Galvanized steel combustion chamber
125mm thick 1265°C 128kg m-3 ceramic fibre insulation
Spark ignition into pilot burner
Flame monitoring (°C PID adjust & display), UV sensor,
Modulating damper, electrically actuated
Automatic temp controlling thermocouple

Options:

Multiple inlet manifold, Stainless steel Pipe work,
Stainless steel Condensate knockout pot,
Stainless steel demister element,
Pumped drainage system, Trace heating and insulation,
Orifice plate flow meter, Thermal mass flow meter,
Digital transmitter display on control panel,
Gas fan inlet ATEX flame arrester, Belt drive,
Pressure digital transmitter in mbar on control panel,
Other options available to suit customer requirement



Twin stage blower, Acoustic enclosure,
Low pressure switch, Gas analyser inlet,
Inlet gas analysis system,
Data logging & Telemetry
Electric operated safety shut-off valve

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General Specifications

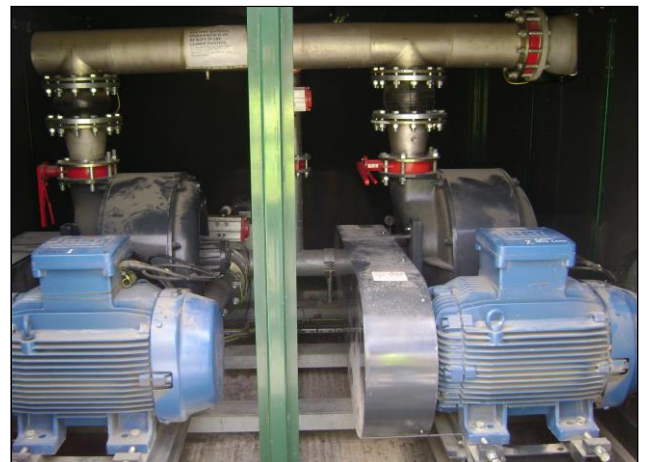
Model Specification		GF10-100	GF10-300	GF10-500	GF10-1000	GF10-1500	GF10-2000	GF10-2500	GF10-3000
Landfill gas flow rate	Nm ³ h ⁻¹	20-100	60-300	120-600	200-1000	300-1500	400-2000	500-2500	600-3000
Minimum Burner Capacity	kW	100	300	600	1000	1500	2000	2500	3000
Maximum Burner Capacity	kW	500	1500	3000	5000	7500	10000	12500	15000
Combustion range CH ₄	% vol	20-60 %	20-60 %	20-60 %	25-55 %	25-55 %	25-55 %	25-55 %	25-55 %
Flame temperature*	°C	1000-1200	1000-1200	1000-1200	1000-1200	1000-1200	1000-1200	1000-1200	1000-1200
Minimum Residence Time	sec	>0,3	>0,3	>0,3	>0,3	>0,3	>0,3	>0,3	>0,3
Blower Type		EN	EN	343GX	364GX	365GX	365GX	365GX	365GX
Blower Material		Cast Al	Cast Al	304 SS	304 SS	304 SS	304 SS	304 SS	304 SS
Motor	kWe	3	7,5	11	15	18,5	22	30	30
Max power consumption	kWe	2	5,5	5,8	9,6	10,7	17,3	20,5	23,7
Full Load Current	Amps	4	20,5	20,5	27,5	33,5	42	57	57
Blower Duty pressure	mbar	150	150	154	164	170	179	174	165
Turn Down Ratio	ratio	1:5	1:5	1:5	1:5	1:5	1:5	1:5	1:5
Ignition on Pilot		High Energy Spark							
Noise level	dB(A)	<80	<80	85	88	88	91	91	91

Other options are available upon request.

We reserve the right to alter specification without prior notice



Direct-drive twin stage blower



Duty – Standby Belt Drive blowers

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Features



Skid mounted chassis



Wide range of control systems



Ceramic fibre blanket rated up to 1420°C



Control panels are pre-wired & tested to speed installation and commissioning & Acoustic housing to minimise noise



Telemetry panel



Fireblaster landfill gas Pilot



Flow measurement



Landfill Gas Analyser panel



Fully comply to ATEX regulations

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Installations

