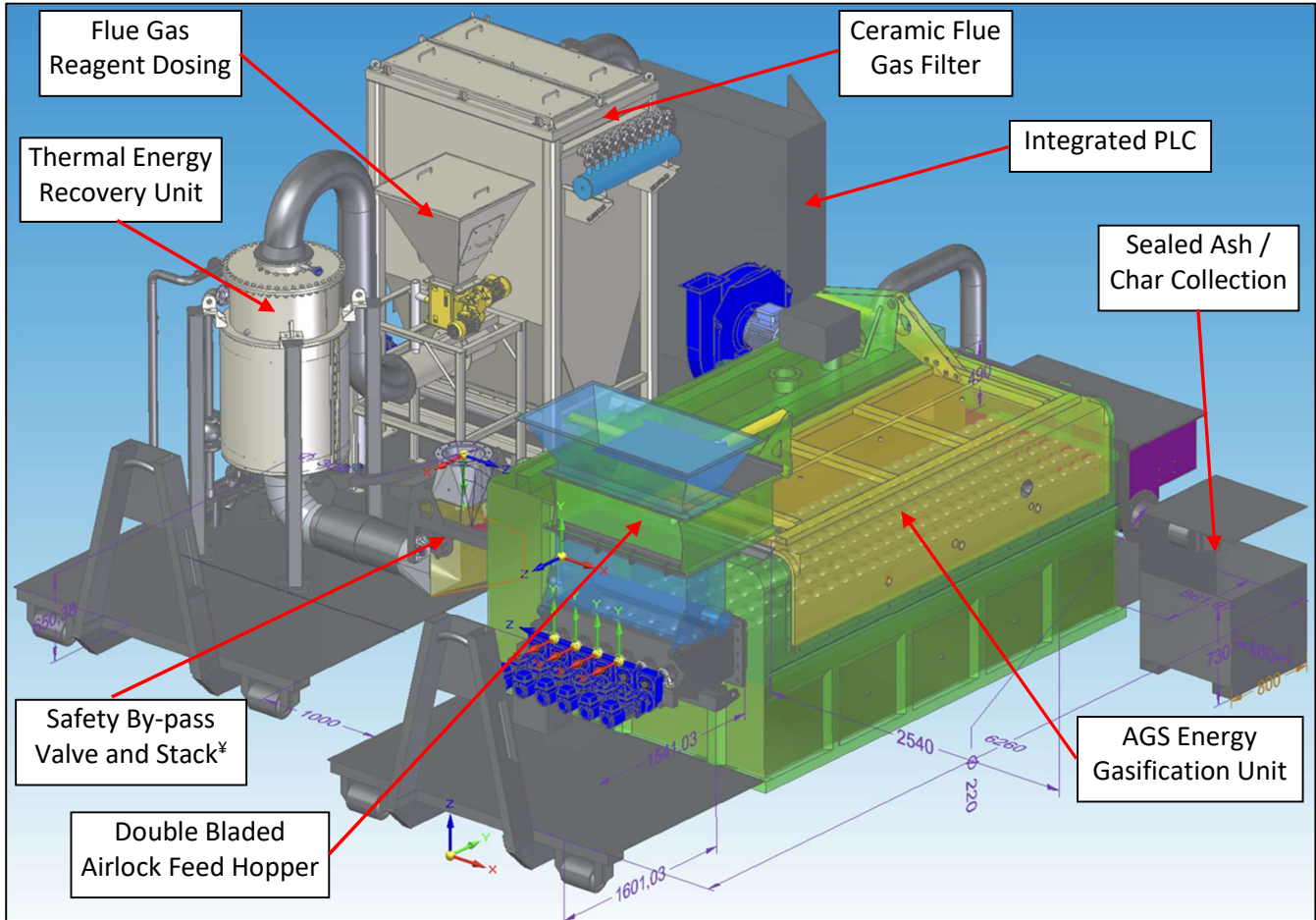




AGS Gasification Product Data Sheet

September 2022

Treating challenging organic waste streams with our Patented and proven gasification process.



AGS Energy gasification waste to energy systems offers flexible, modular systems that can be sized for the client's needs.

The smallest 6 Auger system configuration of this technology can be delivered to site on as few as two* 20ft shipping container sized hook-lift skids and can be installed and commissioned in as little as 24 hours**. This configuration of the AGS system provides#:

- nominal 2,500kg per day material disposal capacity
- nominal 250kWh of thermal output as hot water up to 95°C
- 4/5G connectivity for 24 hour automated operations, performance monitoring and self-diagnostics with on-call servicing and maintenance for worry-free operation
- Full compliance with EU, UK and US environmental emissions regulations and standards.

* based on basic system providing hot water. Excludes any materials shredding / loading equipment (supplied separately as per site requirement)

** assuming site preparation works are completed and availability of power and water connections

nominal performance based on typical waste streams & moisture content

‡ stack omitted for clarity



AGS GASIFIER PRODUCT DATA SHEET

	Boiler Model Number	Units	6 Auger	12 Auger	18 Auger	Comment
Waste Treatment	Nominal Through-put Capacity	kg/h	60-110	120-220	180-330	Assuming 100% destruction of organic content. Higher through puts may be achieved for production of biochar materials
	Min / Max Through-put	kg/h	60/120	120/240	180/360	
	Nominal Operating Moisture Content	%H2O	30-50	30-50	30-50	
	Min / Max Moisture content	%H2O	10/70*	10/70*	10/70*	*subject to calorific value
	Nominal (min) Calorific Value	MJ/kg	18 (12)	18 (12)	18 (12)	
Gasifier Dimensions	Weight (nominal)	kgs	7,000	11,000	15,000	
	Length	mm	6,000	6,000	6,000	
	Width	mm	2,450	3,550	4,650	
	Height	mm	1,800	1,800	1,800	
Electrical	Nominal (peak) Parasitic load	kWe	1.6 (2.4)	3.2 (4.8)	4.8 (7.2)	Excludes shredder / loading equipment
	Voltage	V	230/400	230/400	230/400	Specified on Order
	Current Requirement	A	40/20	40/20	40/20	
Control	Automated Control	PLC	Yes	Yes	Yes	
	Data Logging	PLC	Yes	Yes	Yes	
	HMI Touch Screen	HMI	Yes	Yes	Yes	
	Remote Viewing	4/5G	Yes	Yes	Yes	Subject to min signal strength availability
Operational and Safety Features	Automated self-diagnostics Control system	PLC	Yes	Yes	Yes	
	Automated alarms and alerts messaging system	PLC	Yes	Yes	Yes	SMS Text alerts for feed and ash hopper level indicators and for general operational non-conformity alerts
	Automated safety bypass and shut-down system	PLC	Yes	Yes	Yes	
	Automated fire suppression system		Option**			**available for sensitive site locations and applications



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	Boiler Model Number	Units	6 Auger	12 Auger	18 Auger	Comment
Indicative Operational Energy Output Scenarios [¥]	Hot Water / thermal oil	kWt	225-275	450-550	675-825	Nominal values based on average through-put not less than 100kg/h of waste with minimum average Cv not less than 14.0 MJ/kg
	Steam*	Kg/h	N/A	800-1000	1200-1500	*Saturated steam in the range of 2 to 16barg
	Electrical Output	kWe	20-30	40-100	60-135	Electrical output performance depends on the optional power generation technology adopted
	Chilling	RT**	64-71	128-142	192-213	**Refrigeration Tonnes - Output as chilled water in the range of 7-9°C utilising an absorption chiller device. Caution: outputs may vary widely dependent on the quality of the absorption chiller device and the geographical parameters (ambient temperature, relative humidity, altitude)
	Biochar	Kg/h	15-30	30-60	45-90	Note: Biochar (or good quality biochar) is not always achievable. Performance and quality depend entirely on the nature of the input material: particle size, Cv and particle size.

¥ Not all Energy output scenarios may be suitable or appropriate for the site / project circumstances: values are subject to on-site commissioning and optimisation process to determine the maximum / optimal energy output performance based on the prevailing site conditions, the material(s) composition, the Cv and moisture content