

Valkyrie ECO

Transforming H₂S Treating for Renewable Natural Gas

Listening to industry needs and delivering technology to address those needs is what we do at Streamline Innovations. Building off the substantial success of our oil and gas VALKYRIE® H₂S treating systems.

Utilizing Talon®, our non-toxic, biodegradable liquid redox chemistry, the VALKYRIE® ECO system is designed specifically for H₂S treating in Renewable Natural Gas (RNG) applications focusing on anaerobic digesters and landfills.

Capacity

- Treat up to 675 scfm and up to 10,000+ PPM H₂S continually to pipeline spec with infinite turndown
- Ability to operate units in parallel and expand linearly
- Ultra low pressure with no pressure loss across the system

Operations

- Single-button startup with fully automated operations allowing for limited operator intervention
- Simple installation through modular, self-contained, and winterized design in a 40' enclosed skid
- Operates continuously without shutdowns for media changes
- Does not introduce oxygen into the gas stream

Value-Added Benefits

- Environmentally forward design eliminates need for hazardous spent media handling and disposal
- Only byproduct is Simple Elemental Sulfur™, certified by OMRI for use as a fertilizer in organic agriculture
- Eliminates need for thermal oxidizers
- Low total cost of ownership



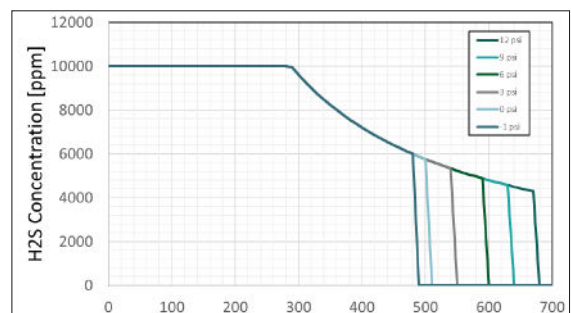
VALKYRIE® ECO Design Parameters

Design Gas Flow Rate	500	scfm
Max Inlet H ₂ S Concentration	10,000	ppm
Outlet H ₂ S Concentration	< 4 or < 20	ppm
Max Sulfur Removal	360	lbs/day
Operating Pressure	-1 to 12	psig
Differential Pressure	0	in. WC
Inlet gas Temperature	40 to 135	degF

Utility Consumption (provided by customer)

Connected Load (480V)	115	amps
Inlet Water (estimated)	200	gal/day
Reject Water (estimated)	67	gal/day
Instrument Air (@ 100 psig)	5	cfm

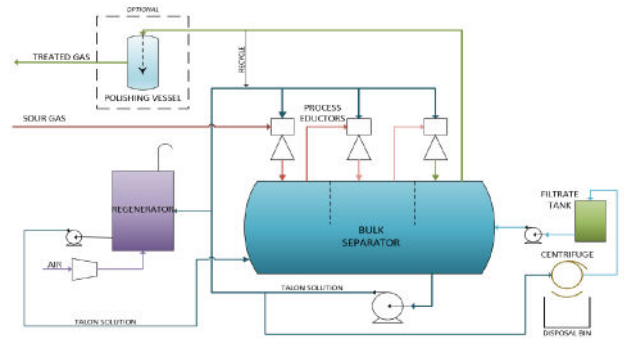
VALKYRIE ECO Operating Envelope



Revolutionary Treating Process

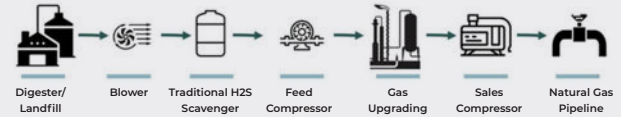
Utilizing our High Efficiency Contacting System™, the VALKYRIE® ECO system is able to treat to pipeline spec at ultra low pressures with zero pressure loss across the unit. This system fits into a 40' enclosed skid, reducing fabrication, transportation, and installation costs.

The VALKYRIE® ECO - Process Flow



Operational Flexibility

The VALKYRIE ECO system is operationally flexible allowing for H₂S treating to occur at multiple points along the gas upgrading process. The most optimal point is prior to any blower or compressor, removing the H₂S to improve equipment run-time and worker safety. The ECO can provide upstream bulk H₂S removal or serve as a tailgas treater for gas upgrading equipment.



Product Roll Out

The VALKYRIE ECO system is available through either a purchase or lease program combined with chemical supply and support services. The VALKYRIE INTELLIGENCE PLATFORM® (VIP®) is available as an optional service that provides cloud-based remote monitoring from our 24-7 operational control room.



About Streamline

Streamline was founded in 2016 to develop and deploy the most robust and viable H₂S treating technology. Our principal technologies are Talon and the Valkyrie H₂S Treating Unit, treating H₂S in water, gas, and air phases. Please visit our website or call for more information.



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