

TECH NOTES

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R. HANSON

Model 244W/E Ignition System Re-Invented "244L" Ignition System

Varec Biogas is proud to introduce our most advanced low pressure ignition system for the Model 244W Waste Gas Burner and Model 244E Enclosed Burner System. The "244L" ignition system was developed in response to recent changes in hazardous area classifications and to meet the needs for customers who want to operate over a wider range of pressures or with different pilot gas streams.

The National Fire Protection Association (NFPA) 820 Recommended Standard for Wastewater Treatment Utilities, amended in 2008, now includes classification of the area around the waste gas burner. It states the following:

1. Within 3m (10 ft) envelope of all fixtures, appurtenances and housing – Division 1.
2. Envelope 4.6 m (19 feet) above Division 1 envelope and 1.5 m (5 ft) on all sides – Division 2.

Due to this new regulation, the "244L" ignition system becomes your most cost-effective ignition system for the Model 244W Candle Stick Flare or Model 244E Enclosed Burner System where high pressure pilot gas is not available.

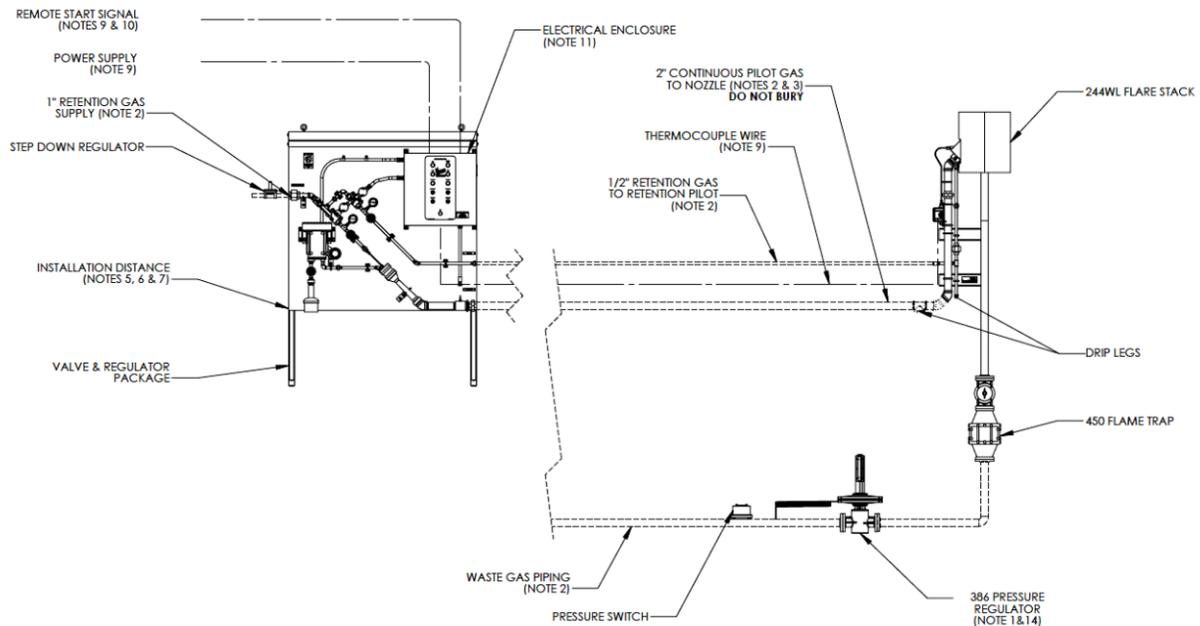
The "244L" ignition system utilizes the same flame front technology which has become the industry standard. The pilot gas components panel can be mounted up to seventy feet from the burner stack. It can utilize biogas, natural gas or propane at pressures as low as 4" WC. This new ignition system no longer requires a straight pilot gas piping run from the pilot gas control components panel to the burner stack. Forty-five degree elbows at least 18" apart are allowed providing for greater flexibility during design and installation.

The "244L" ignition system comes equipped with a blower to pre-mix air with the pilot gas to achieve the proper air-gas mixture required for combustion. This pre-mixing of the pilot gas and air insures that the pilot stays lit under virtually all flow and weather conditions.

The control panel and pilot gas control components are mounted on a plate complete with weatherhood and mounting stand for easy installation. The pilot gas control components include:

- 1) Solenoid valves with aluminum construction and stainless steel inserts.
- 2) Pressure gauges, 0-30 inches WC range
- 3) Isolation valves and globe valves
- 4) 2-inch 347 SS inspirating venturi.
- 5) Air blower
- 6) Spark plug

The typical lay-out is shown below.



The angled design of the pilot gas piping has been field tested to achieve the proper air-gas mixture needed for optimum combustion of the waste gas.

All serviceable items are located remotely from the burner stack which protects all electrical components from the heat of combustion. More importantly, Operators are protected from radiant heat effects from the waste gas burner when it is in operation.

The "244L" ignition system is a complement to a long line of innovative products for the Biogas market. With over 80 years of experience, Varec Biogas is constantly developing products to anticipate and meet the needs of our customers.

Please consult your local representative for additional information on the latest ignition system for our Model 244 Waste Gas Burner family.