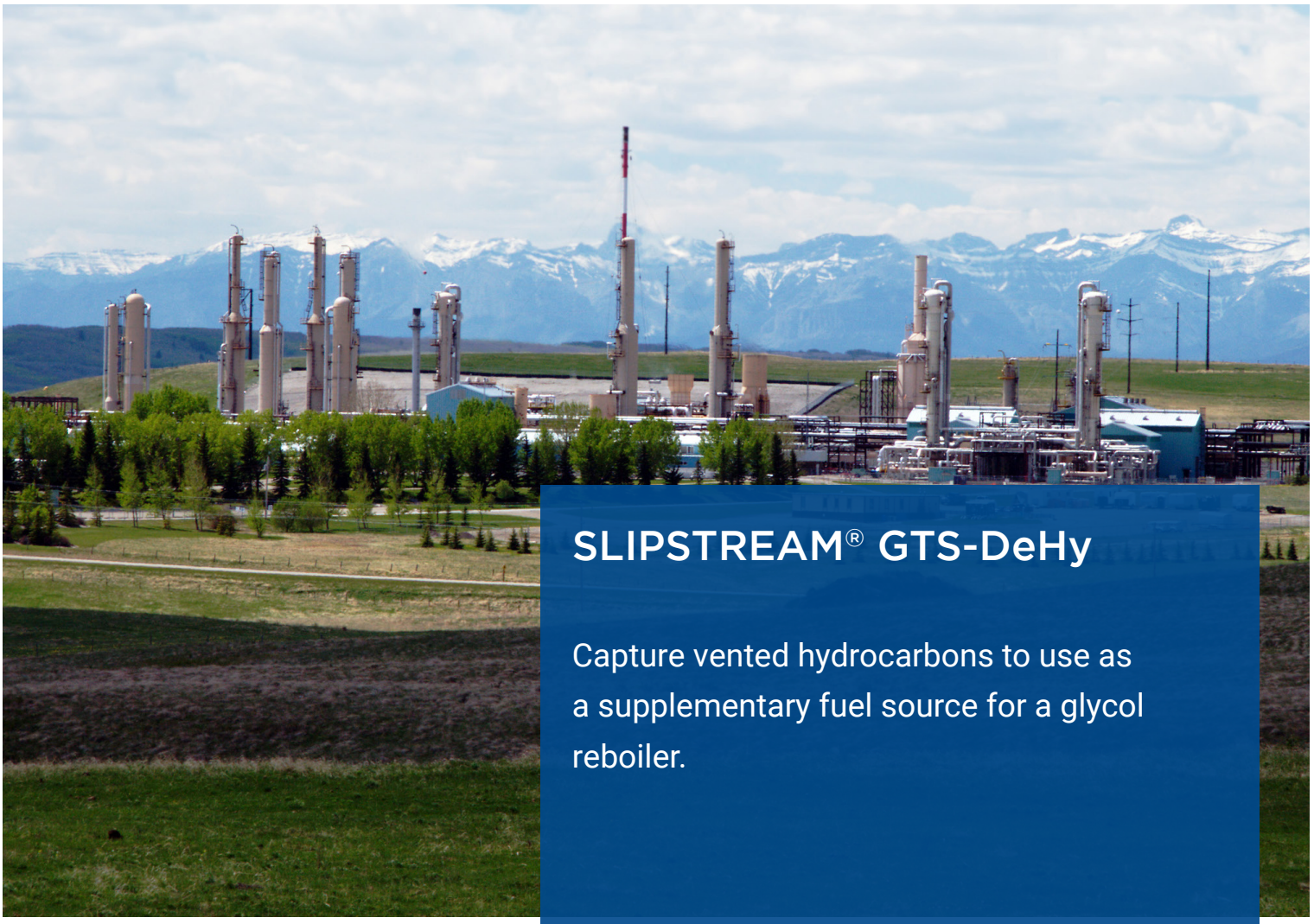
SPARTAN CONTROLS

Automation | Valves | Measurement | Process Control



SLIPSTREAM® GTS-DeHy

Capture vented hydrocarbons to use as a supplementary fuel source for a glycol reboiler.

www.spartancontrols.com

CANADA'S BEST MANAGED COMPANIES Platinum member

CUSTOMER FIRST

Within the oil and gas industry, it has become imperative for producers to meet environmental regulations and reduce operating costs in order to enhance production.

The Spartan Controls Slipstream® GTS-DeHy is a revolutionary new patented product designed to capture and burn vented hydrocarbons (including BTEX) from a still column off a glycol reboiler, using a tank capture system, to be used as a supplementary fuel source for the glycol reboiler main burner.

Spartan Controls specializes in providing solid, proven optimization technology for the natural gas industry. The SlipStream® GTS-DeHy technology has a positive environmental effect by reducing emissions of methane and BTEX, AER validated to have 99.5% destruction efficiency, in compliance with Directive 39. While many other emissions reduction systems on the market increase costs, our technology allows most Customers to achieve lower operating costs through fuel savings as they reduce BTEX emissions – emissions reduction with a payback.

SPARTAN CONTROLS REMVue® SlipStream®

SLIPSTREAM® GTS-DeHy

- 99.5% BTEX destruction efficiency
- AER validated Directive 039 compliance
- $/year burner fuel savings
- $/year GHG carbon offset credits
- Total tonnes/year CO_2(e) reduction
- Normal glycol reboiler operation maintained
- Designed for variable gas flow, BTEX and heat content
- Still column vented hydrocarbons are burned in main or auxiliary Burner
- Minimal back pressure on vent gas source < 16oz
- Optional liquid handling system available
- Measures and stores vent gas usage and provides totals in fuel flow, GHG tonnes saved, GHG $ earned
- B149.3 compliant
- Datalogging
- GHG reduction
- Qualifies for GHG credits where applicable
- Eliminates odor from vented BTEX

SlipStream® GTS-DeHy glycol reboiler building showing new main burner and aux burner assemblies

SlipStream® GTS-DeHy supervisory control panel plate complete with main BMS, aux BMS (sqare plate with x4 boxes on the left) and main burner flame arrestor (round, silver circle device on the right)

SLIPSTREAM® GTS-DeHy

Reduced Environmental Effect

Vented hydrocarbon emissions are found at most glycol reboiler facilities involved in the production, processing and transportation of natural gas. The most common vented gases found at these facilities are methane and BTEX. Methane is a greenhouse gas and 25 times more potent than carbon dioxide. BTEX is carcinogenic, and the emissions into the environment are regulated.

SlipStream® GTS-DeHy technology uses vented emissions from glycol reboilers as supplemental fuel. BTEX, VOCs and other hydrocarbons are destroyed in the SlipStream® system with a destruction efficiency of 99.5%.

SlipStream® uses these emissions as fuel for the main burner and, as a result, dramatically reduces the process fuel required for the reboiler.

SlipStream® Gas Source

The AER Alberta Directive 039 and the Saskatchewan Ministry of Energy and Resources Directive 18 limits the amount of benzene emissions from glycol dehydrators that can be emitted into the environment. SlipStream® GTS-DeHy was designed to meet this specific need by rerouting the vented emissions to be used as supplemental burner fuel gas to heat the process. An auxiliary burner is included to ensure vented emissions (e.g. methane & BTEX) are destroyed even when there is no need to heat the process.

100% of the vented emissions from the still column are burned in the main burner or aux burner.

Applications

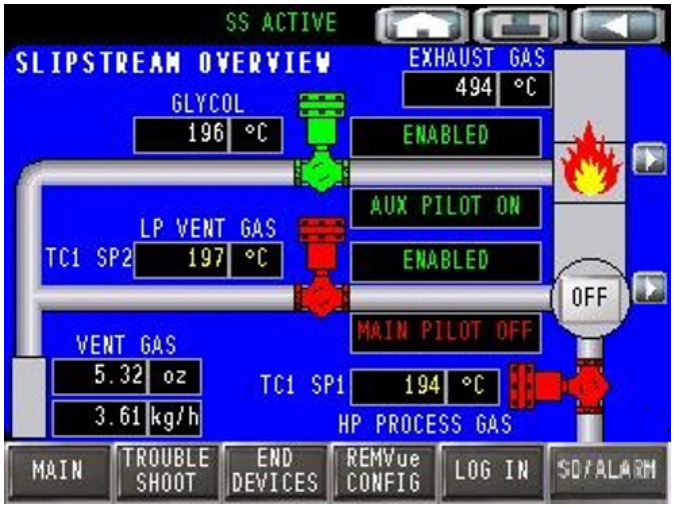
Viable for most glycol dehydrator systems.

- Burner size: 250,000 up to 1,000,000 BTU/hr
- Grid power required

Software Control

The SlipStream® system is designed with our Supervisory Burner Controls (SBC) technology which automatically controls:

- Vent gas pressure changes
- Primary vent gas temperature control
- Main and auxiliary burner switching logic
- Communication check logic
- Liquids handling
- Vented flow gas
- Measurement
- Datalogging

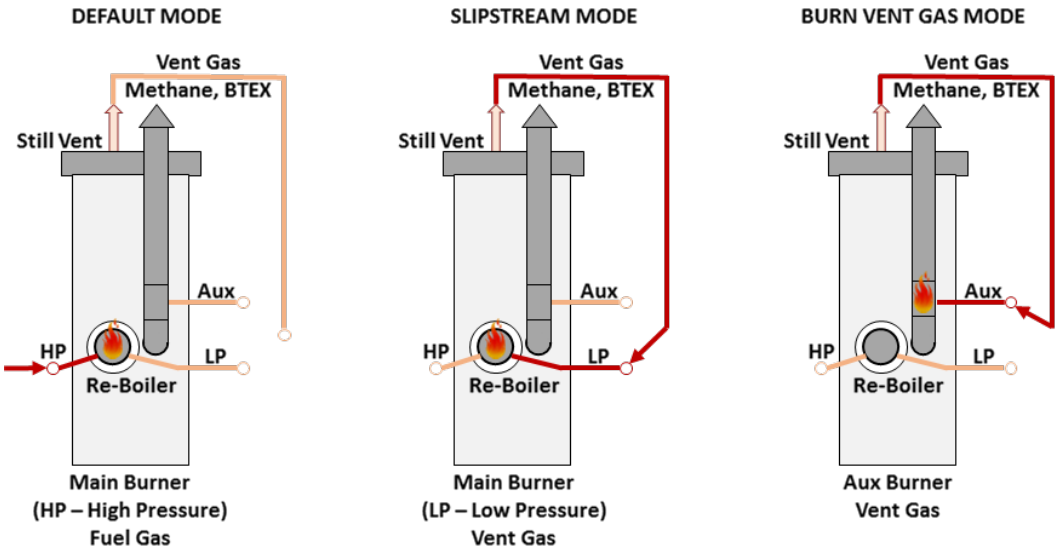


The result is optimum control and compliance for your glycol reboiler equipment burner management system for all operating conditions.

SLIPSTREAM® GTS-DeHy

Emission Summary

- The average vehicle generates about 5 tonnes of greenhouse gas (GHG) per year.
- One SlipStream® application, using vented emissions from the DeHy still column, reduces GHG(e) emissions by 190 tons or 40 vehicles per year.



SLIPSTREAM® GTS-DeHy
Emission Summary

This newly released addition to the SlipStream® family is designed to work with a glycol reboiler with a still column.

Features

- Easy to install
- Real-time flow and greenhouse gas calculations
- Safely controls SlipStream® gas to LP Main Burner when heat required
- Safely controls SlipStream® gas to Auxiliary Burner when heat not required
- Designed to destroy methane and BTEX vented emissions
- Ethernet & Serial Modbus
- Maintains accurate control of glycol reboiler operations

Safety

SlipStream® GTS-DeHy employs advanced safety control strategies to ensure safe, reliable operation over all conditions. The SlipStream® GTS-DeHy system can easily convert existing glycol reboiler to use the still column vented emissions as a fuel source to heat the process and become emissions free, exceeding compliance obligation.

Use free fuel,
become emissions free

SlipStream® GTS-DeHy supervisory control panel plate complete with main BMS and aux BMS

SLIPSTREAM® GTS-DeHy
Benefits

- AER Validated Directive 039 Compliance
- Use available vented gas as fuel for the glycol reboiler
- 99.5% Destruction Efficiency of vented hydrocarbon and BTEX emissions
- Carbon Offset Qualified — Significant GHG reduction and offset $ available
- Protects the environment
- Eliminates odor from vented BTEX

SLIPSTREAM® GTS-DeHy
Installation

Existing Equipment

Slipstream® GTS-DeHy can be easily retrofitted to existing glycol reboiler installations in the field. The systems have been designed for minimal downtime during installation. We offer 2 tiers to suit your needs.

- Tier 1 - Replace Glycol Reboiler and Burner
  - High Pressure (HP) Main Burner piped to Fuel Gas
  - Low Pressure (LP) Main Burner piped to Vent Gas
- Tier 2 Add Auxiliary Burner
  - Exhaust stack upgraded to accommodate the Aux Burner
  - Aux Burner spool piece inserted at bottom of stack
  - Easy Aux Burner inspection and AFR adjustment via access door
  - Rain cap protects Aux Burner flame

Note: Tier 2 can be added to Tier 1 at any time after the initial installation.

Call us or request a quote online 24/7
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