

MEG DEG Recovery



MEG Regeneration Package

With years of experience in glycol regeneration, Frames has the technical know-how to design and deliver a unit to fit your operating environment. Our systems use industry-leading technology to maximize heat recovery and minimize energy consumption. This includes the use of a heat integration system that transfers heat from the treated glycol to the cold used glycol to improve system efficiency and reduce operating costs.

Product Definition

By efficiently and effectively removing water and salts from the commonly used hydrate inhibitors monoethylene glycol (MEG) and diethylene glycol (DEG), the Frames Glycol Recovery Process helps cut operating and maintenance costs, while keeping the producing wellheads in peak production.

Product Description

Fed into the pipeline between the producing wellhead and the receiving facility, glycols prevent hydrate formation in the pipeline, while also protecting the pipes from corrosion. The Frames Glycol Recovery Process efficiently separates the used MEG / DEG at the receiving facility and regenerates it for reuse.

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Glycol Regeneration Package - Groningen Long Term

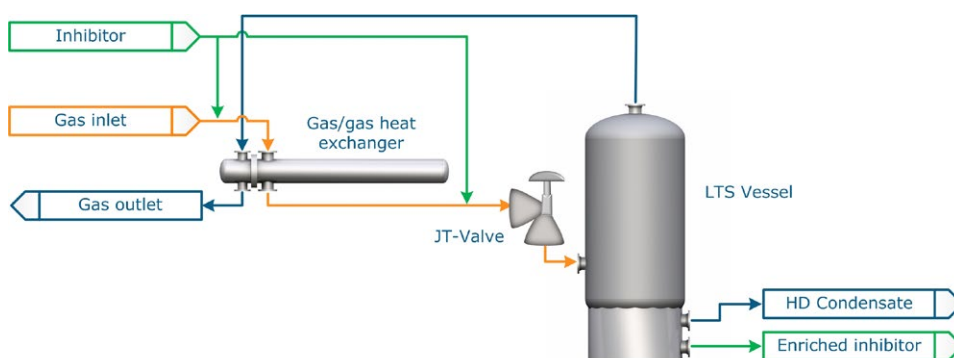
Process Description

Rich glycol collected by upstream located separators is fed into the Frames Recovery Skid, where it enters the flash vessel to remove the flashed gases and liquid hydrocarbons.

The remaining rich glycol passes through charcoal and cartridge filters to remove any solids deposited through degradation or corrosion, before being pre-heated by heat exchange with freshly regenerated glycol. The warmed rich glycol is then fed into the system's distillation tower for regeneration.

The still column is mounted on top of a reboiler, which heats the mixture. Vented vapors (boiled-off water) are condensed at the top of the still column before entering the overhead vapor separator. Depending on the flow rate and cooling requirements, the condenser will be an internal or external unit. For an external unit a dual-phase vapor separator splits off the small amount of non-condensable gases for LP flaring, while the remaining condensed liquid is partially discharged to a closed drain system. Finally, the reminder is injected in the top of the still column to create the required reflux.

Once regenerated, the clean, lean glycol is pressurized before being used to preheat the incoming glycol stream. Now partially cooled, the lean glycol is pumped into storage tanks ready for reuse.



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Project Management

At Frames, we look at the bigger picture. Our team of in-house experts works with our clients to understand their business, and challenge them to examine better solutions that give them the competitive edge.

From optimizing production to cutting operating costs, we work to fully integrate our Frames solutions into your production system within budget, on time, and in spec for years of trouble-free operation.

We understand your expectations for high performance, and use industry-leading project management and document control to design, construct, and commission quality products where and when you need them. Our centralized engineering and construction teams in the Netherlands work together to find effective answers to each unique project, with our global network of offices, suppliers, and trusted service providers giving us the global reach to fully accomplish the most challenging projects.

Technical Details

- **Cost-effective glycol recovery**
- **Skid-mounted units for easy installation**
- **Low-maintenance design**
- **Heat integration technology cuts energy demands**

Added Value Frames

- **Designed to match your unique operating conditions**
- **Solution integrates fully into your production system for continuous, trouble-free operation**
- **Our experienced in-house engineering team are specialists in building energy-efficient units for optimum glycol recovery**
- **Solution built for performance in the most demanding of environments**
- **Worldwide service with full, expert support**

References

- **Utorogu NAG 2 - Shell Nigeria (SPDC), Nigeria**
- **Groningen Long Term - N.A.M., the Netherlands**
- **Kollsnes - Statoil, Norway**
- **Atlantic & Cromarty Project - ExxonMobil, United Kingdom**
- **L9-FF-1 - N.A.M., the Netherlands**

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Frames Family Tree

