

FES FUGITIVE EMISSIONS SEAL

EcoSeal Technology: Achieve Zero Emissions and Maximum Reliability

Eliminate emissions at the source. Protect your process, your people, and the planet.

Our next-generation zero-leakage sealing solution is engineered for today's most aggressive applications—capturing fugitive emissions where traditional seals fail. By creating a positive pressure barrier and redirecting escaping media back into the process or flare system, this solution delivers proven, measurable reductions in VOC and HAP emissions.



WHAT MAKES IT DIFFERENT?

- Engineered for compliance - Exceeds current EPA and LDAR standards
- Drop-in retrofit - Installs in existing equipment without costly modification
- Backed by field data - Demonstrated 95-100% reduction in emissions in real-world refinery trials
- Built for uptime - Resistant to thermal cycling, vibration, and shaft misalignment

This is more than a seal—it's a critical tool in your emissions reduction strategy and ESG compliance plan.

Certified to ISO 9001:2015 Standards

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OVERVIEW

EcoSeal is SEPCO's patented zero-leakage sealing solution designed to capture and reroute fugitive emissions before they escape into the environment. This drop-in retrofit system uses a pneumatic barrier to return gases to flare systems and meets or exceeds industry regulations.

Key Features

- Zero Emissions: Captures and reroutes leakage back to the flare system.
- Media Flexibility: Operates with nitrogen, air, or steam.
- Flexible Applications: Works with reciprocating pumps, valves, and critical equipment.
- Compact and Durable Design: Integrates seamlessly into existing pump housings without modifications.

Contact SEPCO to schedule a site evaluation or request a custom-engineered EcoSeal retrofit for your facility.

WHY CHOOSE ECOSEAL?

- Reliability and Safety: Aligns with REG EPA and OSHA best practices.
- Versatility: Effective across pump and valve sealing environments.
- Sustainability: Reduces emissions, improves environmental compliance.

Challenge	FES EcoSeal Benefit
Fugitive steam emissions	Captures and redirects emissions to flare or condensate return
Frequent packing replacement	Increases packing life through controlled compression
Operator safety concerns	Contains high-temp leaks and reduces exposure risk
LDAR & PSM compliance	Provides measurable emission control per Clean Air Act
Maintenance costs	Controls the sealing environment to reduce rod damage and packing frequency.

Key Performance Outcomes

1. 5-90% Reduction in Rod Leakage
2. 2-3x Increase in Packing Interval
3. Improved Rod & Bushing Life
4. Real-Time Emissions Monitoring via Differential Ports

Regulatory Compliance and Standards

- PSM (Process Safety Management): OSHA-aligned for safe, reliable operation.
- LDAR (Leak Detection and Repair): Meets EPA Clean Air Act requirements.
- ISO 14001: Supports environmental management and waste reduction.
- NSPS: Ensures compliance with new/modified emissions sources.
- MACT: Uses the best available tech for hazardous pollutant control.
- Fugitive Emissions Control: Targets valves, pumps, and connectors.