Driving Global Decarbonization

Join us in our mission to create a cleaner, more sustainable future.
Discover the power of clean energy with Sapphire Technologies – a leading clean technology provider of energy recovery systems driving global decarbonization and improving the way the world harvests and utilizes energy.

Our FreeSpin® In-line Turboexpander is a reliable, zero- emissions, and cost- effective solution that helps pipeline operators quickly and effectively decarbonize their operations, generate cash flow, and earn tax and carbon credits.

Sapphire Technologies’ patented FreeSpin In-line Turboexpander is designed to convert energy wasted in pressure reduction processes into electric power, without interrupting operations. As the world moves towards sustainable energy, we are at the forefront of shaping the future of clean energy production.
Carbon Footprint Reduction

As the world becomes increasingly focused on reducing carbon emissions and mitigating climate change, the oil and gas industry is facing mounting pressure to reduce their carbon footprint. Carbon emission reduction is the cornerstone of our mission.

Sapphire Technologies' FreeSpin In-line Turboexpander converts wasted energy into usable electricity, offsetting CO₂ emissions throughout the gas transportation and distribution network.

Our innovative solution can not only improve environmental compliance, but also create a more sustainable energy future.

Environmental Compliance

Meeting environmental compliance goals is essential for the oil and gas sector. As industry leaders, it is critical to prioritize environmental impact and take proactive measures towards carbon footprint reduction.

By investing in innovative solutions and best practices that reduce emissions and minimize environmental impact, oil and gas companies can meet their compliance goals and lead the way towards a cleaner, more sustainable energy future.

Sapphire Technologies enables pipeline operators to generate clean energy from their single largest asset - the pipeline itself.

Each FreeSpin system generates up to 2.6 GWh of clean energy each year, enough to light 700 homes in New York City and offset 2,000 tons of CO₂e, the equivalent of 4,360 barrels of oil consumed.
Revenue Generation

Our FreeSpin In-line Turboexpander is a cost-effective solution for companies of all sizes. Our technology is designed to minimize both capital expenditure and operating expenses, making the technology widely accessible. With its compact design and modular construction, the FreeSpin is easy to install and maintain, while its reliable active magnetic bearings ensure continuous uptime for up to 20 years.

By utilizing a simple design, the FreeSpin In-line Turboexpander is a unique and innovative power generation solution, with an average payback period of less than two years, depending on the wholesale price of electricity.

Credits

Sapphire's FreeSpin In-line Turboexpander is a valuable asset for companies seeking to reduce carbon emissions, with the added benefit of potential financial gains. Government-led incentive programs offer a 40% Investment Tax Credit in the U.S. for qualifying technologies. Moreover, the energy produced by the FreeSpin system may make companies eligible for carbon credits and Renewable Energy Certificates (RECs).

Carbon credits are generated by projects worldwide that reduce or prevent the release of greenhouse gases, with each ton of reduced emissions creating one carbon credit. These credits can be traded on carbon exchanges.

RECs, on the other hand, are market-based instruments created for each megawatt-hour of electricity generated from renewable sources and delivered to the grid.
FreeSpin® In-line Turboexpander

**Clean Energy**
Proven Fuel-free Power Generation

**Proven Technology**
Over 400 ORCs installed with millions of operating hours

**Efficient**
High-speed Permanent Magnet Generator

**Reliable**
Reliable Active Magnetic Bearings
Sapphire Technologies is located on a seven-acre campus featuring a cutting-edge test facility. With backing from Energy Capital Ventures, Chevron Technology Ventures and Equinor Ventures, Sapphire is dedicated to serving as a reliable and long-term partner. We strive to meet your current and future energy needs, providing solutions that drive your business forward.

Maximize your energy potential today.

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