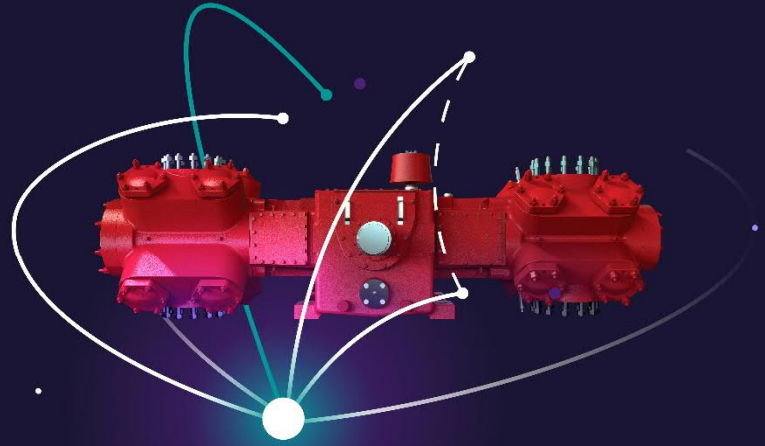


# iFlow™ g3 Monitoring System

Applicable to  
Reciprocating Compressors



[siemens-energy.com](https://www.siemens-energy.com)

**The iFlow™ g3 Monitoring System is one of the most advanced real-time continuous reciprocating compressor monitoring systems available in the market today.**

## **Applicable to Reciprocating Compressors**

Siemens Energy offers a comprehensive portfolio of reciprocating compression solutions for upstream, midstream, and downstream applications. Compressor solutions can be standardized or tailored to your needs in a variety of applications – such as on- or offshore gas production, natural gas transmission and distribution, air separation, chemicals, petrochemicals, and refining. The iFlow™ g3 monitoring system is applicable to Siemens Energy OEM and non-OEM Reciprocating Compressors.

## **iFlow™ g3 Monitoring System**

The iFlow™ g3 system is a proactive automated monitoring system that effectively captures critical data for

reciprocating compressors. The iFlow™ system uses continuously measured pressure data and combines it with temperature and other system parameters gathered to generate mathematical models for comparison with the actual pressure parameters. The system effectively monitors, logs, and analyzes data coming in from each end of the compressor cylinders. A single iFlow™ g3 system can monitor up to 10 double-acting cylinders (20 ends).

With these comparisons, the iFlow™ g3 system identifies anomalies (such as suction valve leakage, discharge valve leakage and ring leakage) in the compression and re-expansion events of the compression cycles. Any checks that do not pass the diagnostic evaluations are annunciated to the operator via the Modbus and through the user interface software. These diagnostics are performed on **every cylinder, every cycle**.

In addition, the myConnect™ box, which is a state-of-the-art connectivity module, allows for efficient data gathering, packaging, and transmission; the myConnect™ box will allow a remote troubleshooting functionality for the iFlow™ g3 system.

# Turning operational data into value by identifying potential issues before they impact on site operations.

## Technical Design and Improvements

- New diagnostic capabilities in order to proactively identify anomalies in the compression and re-expansion events in the compression cycle.
- Consistent data capture and rapid communication. All system data (current performance, statistical and pressure curves for each cylinder) is provisionally stored on the micro controller and is easily linked to a PC or HMI for data archival or historical analysis.
- A simplified user interaction with a newly developed and intuitive PC/Windows software used for both operation and configuration of the iFlow™ g3 system.

## Features and Benefits

The iFlow™ g3 offers various benefits to your operation, including:

- Increasing reliability and availability through proactive support and identifying a potential issue before it impacts site operation.
- Leveraging OEM design and fleet wide experience.
- Various integrity diagnostics are performed on every cylinder, every cycle for improved responsiveness and advanced troubleshooting.
- Remote diagnostic capability to ensure peace of mind through active data monitoring by diagnostic engineers.

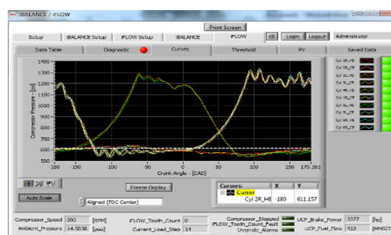


Figure 1- Threshold Screen

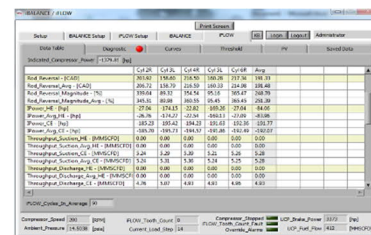


Figure 2- Data Summary

## Applicability

As the compressor OEM, Siemens Energy is best suited to provide a conversion solution that ensures the best overall compressor performance and maintenance, from a single source. Applicable to all Siemens Energy OEM and non-OEM Reciprocating Compressors.

## Support Services and Implementation

Siemens Energy Services experts support the customer in all the aspects of installation. Providing upgrade, revamp, repair solutions, and technical support at all levels of client projects.

## Scope of Work

Typical manufacturing lead times range for standard parts depending on the factory workload.

Packing installation and maintenance access must also be considered.

- Engineering design and drafting
- Procurement and documentation
- Installation and supervision
- Commissioning

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