



Gas Flow Controller (GFC) Introduced at Semicon West 2011

GFC ENABLES AN ORDER OF MAGNITUDE PERFORMANCE IMPROVEMENT IN GAS FLOW CONTROL FOR ADVANCED WAFER PROCESSING

San Francisco, CA.—July 12, 2011—Pivotal Systems Corporation, the leader in advanced process monitoring and control solutions, today announced the launch of its much awaited Gas Flow Controller (GFC) product. GFC-200 is Pivotal's first production release in the GFC product line that targets a full scale gas flow rate of 200 sccm. GFC combines Pivotal's patented high accuracy, NIST-traceable GFM system with patent-pending high-precision control valve technology. Key performance features of the GFC are:

- Best flow accuracy with widest flow range: 0.5% of set point for 0.5 - 100% full scale
- Best turndown ratio: 2000:1
- Fastest settling time: Less than 50ms
- Insensitive to pressure and temperature variations
- Automated in situ calibration through GFM

“As technology nodes scale to 22nm and beyond, gas flow control continues to be one of the biggest challenges to achieving stable, high yielding manufacture-able processes,” said Mukund Venkatesh, Pivotal's Vice President of Marketing. “GFC leapfrogs current best-in-class MFCs and flow control systems by combining its award winning GFM system with proprietary valve technology.” Venkatesh highlighted details of the GFC, saying that the GFC control valve has an integrated position sensor and control map, used to maintain constant flows under a wide range of upstream pressure and temperature conditions. Furthermore, the sensors and valve operate at a high sampling rate, allowing for control of gas flow on the order of tens of milliseconds. Venkatesh also noted that the GFM sub-system within GFC automatically performs a periodic NIST-traceable flow calibration and maintains absolute flow accuracy without any off-line manual calibrations required.

“GFC-200 units are already shipping to our strategic IDM partners for evaluation and qualification on some of their most advanced deposition and etch processes,” said Cliff Neal, Pivotal's Vice President of Sales. “We are overwhelmed by the customer interest and expect to see an adoption ramp soon as customers complete their evaluations.”

About Pivotal Systems

Pivotal Systems Corporation provides best-in-class monitoring and process control technology for the semiconductor manufacturing industry. Pivotal's vision is to enable an order of magnitude increase in fab productivity and capital efficiency for current and future technology nodes. This vision is achieved through its real time in situ process monitoring and control solutions. Founded in 2003 and based in Pleasanton, California, the company is led by veterans from the semiconductor and high-tech industries. For more information about Pivotal, please visit www.pivotalsys.com, or send an email to info@pivotalsys.com.