



## Norcimbus Introduces Variable Flow Gas Mixing System, Eliminating Waste and Offering Rapid ROI to Semiconductor Manufacturers

PHOENIX—July 14, 2009—Norcimbus FCIV, Inc., ([www.norcimbus.com](http://www.norcimbus.com)), a leader in particle-free UHP process gas systems and automation, today introduced its NBlend variable flow gas mixing system to the global semiconductor and solar manufacturing markets. The NBlend system allows manufacturers to transition away from using specialty gas cylinders and achieve significant cost savings by blending their own specialty gasses in-house, implementing a facility's existing bulk gas supply infrastructure. The NBlend has been demonstrated to achieve a return on investment (ROI) in as little as 60 days.

To cite one example, a 50 standard liters per minute (slpm) maximum flow NBlend system priced at US \$100,000 offers a 60 day ROI. This is achieved in a system running 24X7, 365 days per year with a continuous flow of 40 slpm, with bulk gasses costing \$1 per meter cubed and specialty gas cylinders (6,000 liters each) costing \$180 per bottle.

“The NBlend system represents a major shift in how semiconductor and related manufacturing facilities approach materials delivery,” said John Wheeler, President of Norcimbus. “Advances in process control have enabled significant improvements in gas blending, giving new life to an existing technology and offering manufacturers a very fast path to return on investment and ongoing cost savings.”

Norcimbus' NBlend system offers many benefits over competing technologies, led by the system's closed loop feedback and analysis capabilities. These enable the system to maintain an extremely tight specification on the blended gasses of plus or minus 0.3 percent accuracy ratio. While the MFC-based systems must mix continuously at a set flow rate, which results in the venting of excess gas, the NBlend system measures the actual blend and performs the mixing in real-time, allowing gas to be delivered as needed and eliminating wasted materials.

“The semiconductor manufacturing industry is aggressively seeking to identify areas to reduce costs, and our approach to gas delivery directly addresses this goal, while also maintaining the purity and consistency of the gasses that are required for sensitive processes,” continued Wheeler. “The bottom line is that the NBlend system delivers a very fast return on investment, often in less than six months depending on the manufacturing requirements, while significantly reducing waste and the environmental impact of disposing unused gasses.”

Norcimbus' NBlend system expands on existing gas mixing technology by combining a MFC mixing system, surge tank, concentration analyzer and a proprietary Power Purge V controller. It is designed to mix two gasses to an adjustable ratio and supply a variable flow up to 250 slpm continuously, while the concentration analyzer monitors and adjusts the blend ratio to maintain the concentration set point. It provides control accuracy of



plus or minus 0.3 percent of the requested ratio, allowing it to deliver consistent results with varying flow rates and adjustable blend ratios.

A key component of the NBlend system that differentiates it from other approaches to blending technology is its Power Purge V controller, a state-of-the-art system designed for continuous system monitoring, safe delivery and purging of ultra high purity (UHP) process gas systems. The controller offers an easy-to-use touch screen designed for intuitive operation with a graphical representation of valve status, pressure and flow. It offers programmable ratio control, flow indication for each MFC in real time, a pressure indicator and real-time analyzer readings. The graphical interface allows an operator to quickly determine the status of the tool with a glance at the screen. The panel buttons and on-screen menus offer easy access to any of the controller screens.

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#### **About Norcimbus**

Norcimbus is an industry leader in the design, engineering, manufacturing, installation, and qualification of particle-free UHP process gas systems and related automation systems. Formed in 1990 by a group of individuals with extensive experience in the semiconductor manufacturing industry, the company's dedication and training allows it to give its customers the highest quality products available today. Norcimbus is based in Phoenix, Ariz. where it operates a 20,000 square foot manufacturing facility with 2,500 square foot certified Class 10 cleanroom. For more information contact Norcimbus at (602) 437-8500 or visit [www.norcimbus.com](http://www.norcimbus.com).

#### **Company Contact**

Brian Ebert

[Brian.ebert@norcimbus.com](mailto:Brian.ebert@norcimbus.com)

602 437 8500

#### **Media Contact**

Amy Smith

[amy@impress-pr.com](mailto:amy@impress-pr.com)

401 369 9266