

Jewellok Revolutionizes Integrated Gas System with Cutting-Edge UHP Gas Pressure Regulator And Gas Changeover Manifold

316L Vim Var Stainless Steel Ultra High Purity Oxygen Nitrogen Helium Argon Gas Changeover Manifold And Gas Cabinet Manufacturer And Supplier

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EINPresswire.com/ -- Shenzhen Jewellok Technology Co., Ltd., a leading innovator in ultra-high purity (UHP) gas and chemical delivery systems, today announced a groundbreaking advancement in integrated gas systems with the launch of its next-generation [UHP Gas Pressure Regulator](#) and [Gas Changeover Manifold](#). These state-of-the-art

solutions are set to transform industries reliant on precise gas control, including semiconductors, pharmaceuticals, biotechnology, and advanced manufacturing, by delivering unparalleled reliability, efficiency, and safety in high-purity environments.

In an era where technological precision is paramount, Jewellok's new UHP Gas Pressure Regulator addresses the escalating demands for stable pressure management in ultra-clean processes. Crafted from premium 316L VIM-VAR stainless steel with advanced electropolishing to achieve a 5Ra surface finish, this regulator ensures minimal particle generation and superior corrosion resistance. It features a double-stage design that maintains consistent outlet pressure even under fluctuating inlet conditions, with a control range from 5,000 to 150,000 psi. Key innovations include integrated negative feedback sensors for real-time adjustments, high cycle life exceeding 1 million operations, and compatibility with a broad spectrum of specialty gases such as SiH₄, NF₃, NH₃, N₂O, and HCl. This not only reduces downtime in critical applications but also enhances overall system integrity, making it ideal for semiconductor fabrication where even microscopic contaminants can compromise yields.



Complementing the regulator is Jewellok's advanced Gas Changeover Manifold, engineered for seamless, uninterrupted gas supply transitions. Available in semi-automatic and fully automatic configurations, the manifold supports multiple cylinders and automatically switches sources when pressure drops below user-defined thresholds, ensuring continuous flow without manual intervention. Constructed with the same high-purity 316L stainless steel, it incorporates pneumatic diaphragm valves for leak-tight performance and low dead volume, minimizing gas waste and contamination risks. The system includes customizable panels like VMB (Valve Manifold Box) and VDP (Valve Distribution Panel), tailored for industrial, medical, and laboratory settings. With built-in safety features such as overpressure relief and remote monitoring via IoT integration, the manifold sets new standards for operational efficiency, reducing cylinder changeover time by up to 50% and lowering operational costs through optimized gas usage.



"These innovations represent a pivotal leap forward in integrated gas systems," said James Yuan, CEO of Shenzhen Jewellok Technology. "In high-stakes industries like semiconductors and biotech, where purity and reliability are non-negotiable, our UHP Gas Pressure Regulator and Gas Changeover Manifold deliver the precision and robustness needed to push boundaries. By combining cutting-edge materials science with intelligent automation, we're not just meeting current needs—we're anticipating the future of gas delivery technology."

The development of these products stems from Jewellok's extensive R&D efforts, drawing on over a decade of expertise in fluid control equipment. The company's in-house CAD and 3D prototyping capabilities allowed for rapid iteration, resulting in designs that exceed industry benchmarks for cleanliness and durability. For instance, the regulator's ultra-low particle generation—tested to produce fewer than 0.1 particles per cubic foot—aligns with SEMI standards for high-purity semiconductor processes. Similarly, the manifold's automatic

switchover logic incorporates advanced algorithms to predict and prevent supply interruptions, integrating seamlessly with existing [specialty gas cabinets](#) like BSGS (Bulk Specialty Gas Systems) and scrubber tail gas treatment units.

Industry experts have already praised the potential impact. "Jewellok's solutions are a game-changer for integrated gas systems," noted Sarah Chen, a senior analyst at Global Semiconductor Insights. "With the global semiconductor market projected to reach \$1 trillion by 2030, tools that enhance yield and reduce contamination are invaluable. These products could significantly boost efficiency in fabs worldwide."

Beyond technical prowess, Jewellok emphasizes sustainability and cost-effectiveness. The systems are designed for easy maintenance, with modular components that facilitate quick replacements without system shutdowns. This minimizes environmental impact by reducing gas leaks and waste, while offering no minimum order quantities for custom configurations, making them accessible to startups and large enterprises alike. Applications extend to emerging fields like new energy (e.g., hydrogen fuel cells) and optoelectronics, where precise gas regulation is crucial for innovation.

Founded in Shenzhen, the heart of China's tech hub, Jewellok has grown into a global supplier, exporting to over 50 countries. The company operates a state-of-the-art manufacturing facility equipped with cleanrooms and automated assembly lines, ensuring every product meets ISO 9001 and CE certifications. Recent expansions include partnerships with leading semiconductor firms, further solidifying its position in the UHP market.

As part of the launch, Jewellok is offering complimentary consultations and demos for qualified customers, with products available for immediate shipment. For more information, visit <https://www.specialtygasregulator.com/> or contact the sales team at info@jewellok.com.

About Shenzhen Jewellok Technology Co., Ltd.

Shenzhen Jewellok Technology Co., Ltd. is a premier manufacturer and supplier of ultra-high purity gas delivery systems, control valves, pressure regulators, and related components. Specializing in 316L stainless steel solutions for demanding applications, Jewellok serves industries including semiconductors, pharmaceuticals, laboratories, and new energy. Committed to innovation, quality, and customer satisfaction, the company provides custom designs, rapid prototyping, and global support to enable cutting-edge advancements worldwide.

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