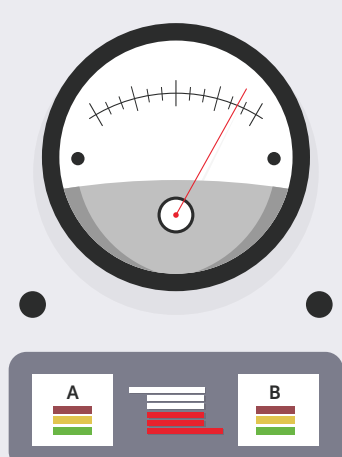


Is Your Process Environment **WELL-EQUIPPED** for Quality Output?

The quality of the high and ultra high purity gases used in your applications is crucial – the lifeblood of your business-critical processes. **But your gas delivery equipment and systems are the vessels that empower those gases to perform.**

Your gas is only as good as your systems allow – **so don't let this vital equipment be an afterthought.**



APPLIED ENERGY SYSTEMS

Consider these equipment factors to ensure process excellence.

Well-Equipped for PURITY

Pure gases are required for pure output. The ability to maintain gas quality is dependent on the materials used to construct your gas delivery system's internal components. Make sure your system's materials of construction are intended for the type of gas you will be leveraging.

- ?** What is the systems' surface finish roughness average (Ra)? The lower the Ra, and the lesser chance of particle impurities contaminating the gas stream.
- ?** What type of quality assurance testing has been done to validate that it can uphold your purity requirements?

Well-Equipped for PRECISION

The quality and uniformity of your desired output – **from semiconductor chips to research results** – is heavily dependent on the precision with which you can control and regulate different gas flow rates, blending processes, and more.

- ?** Is the system's regulator specifically sized to your application's unique flow range and process requirements? This enhances performance and pressure control within your required flow range.
- ?** Are excess flow switches configured to your flow and pressure range? This ensures the system is precisely indicating when high-flow conditions occur above their set range.

Well-Equipped for CONTROL

When it comes to high and ultra high purity gas delivery, in any industry or environment, **safety is critical.** Your highly sensitive gases can often be corrosive, toxic, flammable, and reactive, and control technology plays a **pivotal role in ensuring safe gas delivery system operations.**

- ?** Does your system offer the flexibility to configure alarm setpoints?
- ?** Can you remotely monitor your system's status and condition?
- ?** Do your system controllers offer intuitive operator control?

Did You Know?

Applied Energy Systems (AES) offers **two premier gas delivery equipment lines** to uphold your distinct gas purity requirements:



For Ultra High Purity Gas Applications



Internal Material Component Finish: 10 Ra



Quality Assurance: Conforms to SEMI S2 Standards



Transducer-based System Operation: Provides Constant Monitoring and Multiple Alarm Setpoints



For Versatile High Purity Gas Delivery



Internal Material Component Finish: 15 Ra



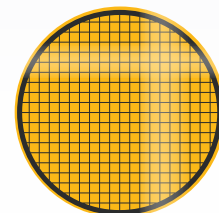
Quality Assurance: Helium Leak Tested to 1×10^{-9} atm-cm³/sec



IPS and Transducer-based Operation: IPS Provides Visual Indicator of Value and 1 Alarm Setpoint

Did You Know?

For over 35 years, AES' SEMI-GAS® brand of UHP gas delivery systems has been the semiconductor industry's go-to source for production-ready gas delivery solutions.



Tier 1 leaders and high-tech innovators

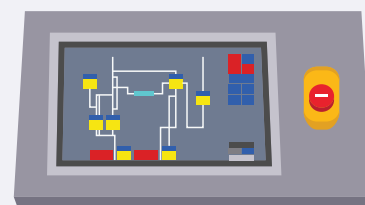
around the world rely on SEMI-GAS® in their processes to uphold the highest standards of quality and precision.



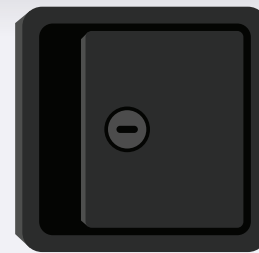
Did You Know?

AES' line of SEMI-GAS® GigaGuard™ control technology is proven for intuitive, safe, and precise UHP gas system control. These programmable controllers are **UL labeled, conform to SEMI S2,** and include:

- PLC:** Programmable Logic Controllers
- ESS:** Emergency Shutdown Systems
- GSM:** Gas Safety Monitors
- PSI:** Pressure Status Indicators
- CDM:** Compact Data Monitors



AES is **Well-Equipped** to Meet Your Distinct Application Requirements



AES is singularly focused on providing gas delivery systems that address our customers' application-specific needs. **As equipment experts, we know how to engineer comprehensive solutions that meet your unique performance requirements** – protecting the purity of your precious process gases while optimizing their ability to positively impact output.

Your gas delivery systems can empower you to capitalize on opportunities for differentiation.

Don't settle for less. Choose

APPLIED ENERGY SYSTEMS

Visit appliedenergysystems.com/equipped today to learn more.