

# The Experts in Gas Delivery Systems Excellence



 **SEMI-GAS®**

Ultra High Purity Gas Delivery Systems

 **VERSA-GAS™**

High Purity Gas Delivery Systems

**Applied Services**

Optimizing Gas Delivery in the Field

**Applied Solutions**

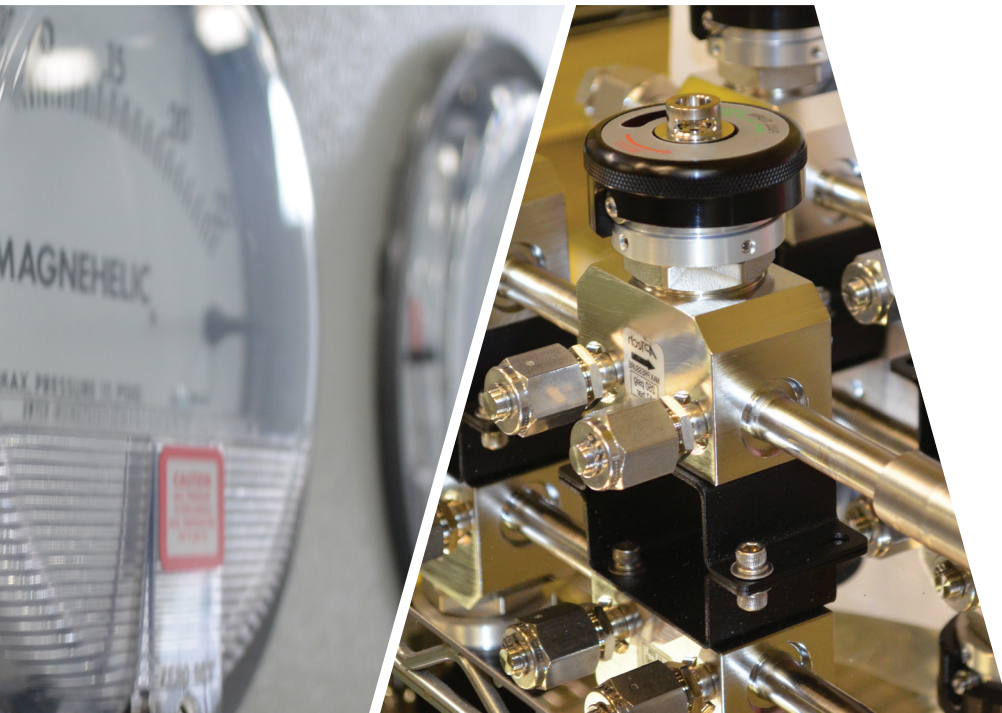
Custom-Engineered Equipment

**Apex Precision**

Applied Welding Solutions for  
Mission-Critical Components

**ARM Purification**

Advanced Purifier Solutions for High  
and Ultra High Purity Applications



  
**APPLIED ENERGY SYSTEMS**





Singularly focused on excellence in gas delivery, Applied Energy Systems is your source for premier high and ultra high purity gas systems, services, and solutions.

Whether your requirements are driven by regulation, innovation, or both, we bring together our specialized engineering capabilities and vast scope of product offerings to create the gas delivery solutions that meet the demands of your business-critical processes.

Since 1968, customers have turned to AES for high-value systems engineering – including design, manufacturing, testing, and field services. Our excellence permeates our products, services, solutions and every industry we touch, to enhance the standard of business for hundreds of customers worldwide.

### Systems-Level Expertise that Sets Us Apart

By focusing on providing only the highest quality gas delivery equipment and services, we ensure that your gas is empowered to perform, and that your systems will never be an afterthought.

#### ***Applied Solutions for Applied Needs***

We provide our equipment and services individually, at a product-level, and collectively, at a systems-level, to deliver tailored solutions that are as unique as your process requirements.

#### ***We're Up to Your Challenge***

As the gases you leverage rise in complexity, so too does the complexity of your gas delivery needs. Rely on our deep engineering expertise to create solutions that meet your challenging process requirements.

#### ***A Trusted Resource to Drive Process Performance***

In addition to adding value from an expert vantage point, we work with our clients as partners, problem solving and collaborating through every phase of their organization's growth and evolution.



With two industry-leading equipment divisions, SEMI-GAS® and VERSA-GAS™, AES addresses high purity and ultra high purity gas delivery needs for a diverse range of rigorous applications.



**SEMI-GAS®** For **Rigorous Ultra High Purity Needs** in Specialized Applications

SEMI-GAS® serves industries with demanding ultra high purity requirements who are seeking premier, production-ready gas delivery and distribution solutions that are globally renowned for quality, and capable of meeting the most rigorous needs for precision and purity.

**SEMI-GAS® Products Include:**



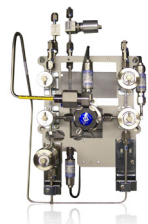
**Centurion™**  
GAS CABINETS

Made for the most precise UHP gas delivery in the most advanced production environments.



**Megaturion™**  
BULK SPECIALTY GAS SYSTEMS

The standard for safe distribution and delivery of bulk hazardous process gases.



**Decaturion™**  
WALL MOUNT SYSTEMS

Proven performance in a modular design to meet an array of UHP application demands.



**Xturion™**  
CUSTOM GAS EQUIPMENT

Custom-engineered systems for your specialized applications and UHP requirements.



**Nanoturion™**  
DISTRIBUTION SYSTEMS

Premier solutions for gas distribution from a single source gas supply to multiple points of use.



**GigaGuard™**  
CONTROLLERS

State-of-the-art, intuitive controllers to ensure safe and continuous gas delivery.

These SEMI S2 compliant UHP systems are ideal for advanced production environments, like those in:

- > Semiconductor
- > Electronics
- > Aerospace & Defense
- > High-Tech Manufacturing

**VERSA-GAS™** For **Safe, Versatile High Purity Gas Delivery**

VERSA-GAS™ serves customers from a diverse range of verticals that seek safe, reliable, cost-effective high purity gas delivery and distribution solutions that uphold their application requirements with safety top of mind.

**VERSA-GAS™ Products Include:**



**vSource™**  
GAS SOURCE SYSTEMS

High purity gas delivery systems made for diverse environments and requirements.



**vBulk™**  
BULK SPECIALTY GAS SYSTEMS

Proven to perform with the utmost reliability for bulk process gas delivery.



**vSupply™**  
GAS DISTRIBUTION SYSTEMS

Powering safe and reliable high purity gas distribution systems in flexible designs.



**vRun™**  
CONTROLLERS

High purity gas equipment controller technology that ensures safety is top priority.

Because of their versatility, VERSA-GAS™ solutions can meet the gas delivery demands for many industries, including:

- > Research & Laboratories
- > Pharma & Biotech
- > Universities
- > Industrial & Manufacturing
- > Photovoltaics & Solar
- > Automotive & Transportation

In addition to engineering premier gas delivery equipment, AES offers value-add support through expert field services, custom-engineered equipment, advanced purifier solutions, and precision welding capabilities.



### Proven Purifiers for Diverse Application Requirements



ARM Purification is the trusted source of high and ultra high purity gas purifiers and equipment, pairing superior fluid and gas flow technology with best-in-class service to empower customer success across a myriad of applications and industries.

#### ARM Purification Offerings Include:

- > **Point-of-Use Purifiers**  
*Low flow rate, highly precise purifiers serving single applications*
- > **Micro-Bulk Purifiers**  
*Moderate flow rate purifiers offering feature customization*
- > **Bulk Purifiers**  
*Large flow rate purifiers configurable to versatile, bulk applications*
- > **High-Quality Services**  
*Analytical services, refurbishment, regeneration, and application support*



### Applied Welding Solutions for Mission-Critical Components



As the premier welding division of AES, Apex Precision delivers comprehensive precision welding, laser marking, and QA services for mission-critical components across a diverse range of complex welding applications and requirements.

#### Apex Precision Services Include:

- > **Laser Welding**
- > **Orbital Welding**
- > **Glovebox Welding**
- > **Manual Metal Arc Welding**
- > **Metallurgical Analysis**
- > **Laser Marking**
- > **Equipment Services**

## APPLIED SOLUTIONS

### Custom-Engineered Equipment for Specialized Applications



AES' Applied Solutions bring together our robust product offerings, industry-leading services, and vertical expertise to solve even the most complex gas delivery and distribution challenges.

#### Applied Solutions Capabilities Include:

- > **Innovative solutions engineered for application-specific requirements**
- > **Adapting our proven equipment to your distinct needs**
- > **Bringing expertise informed by industry best practices**
- > **Taking a "one-size-fits-one" approach**



### Optimizing Gas Delivery in the Field



Through Applied Services, we provide customers with a full range of systems-related field services that ensure the products we create are optimized for safety, performance, and purity in the environments for which they were designed.

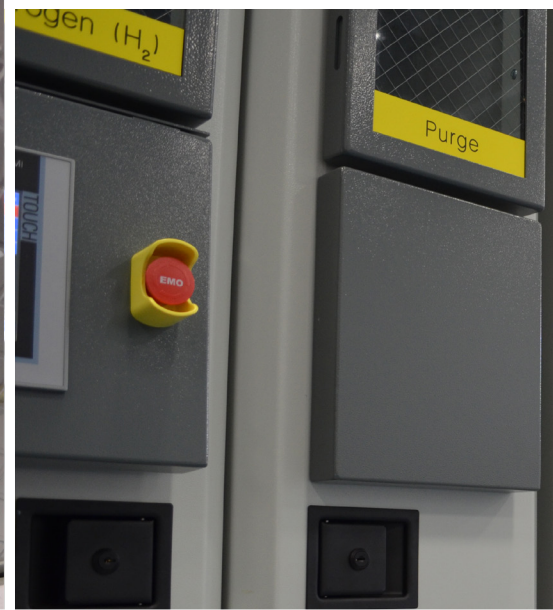
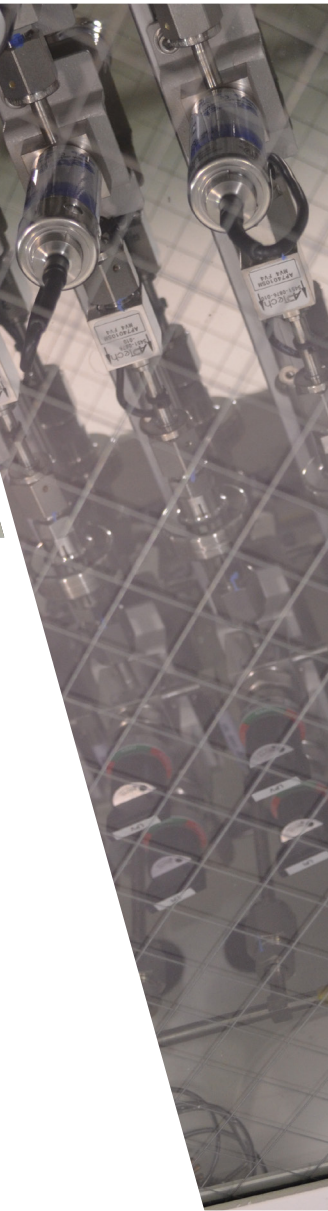
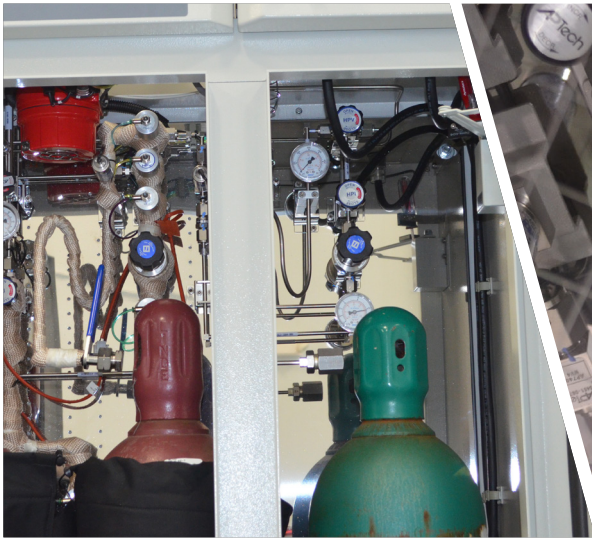
#### Applied Services Capabilities Include:

- > **High Purity Process Piping**  
*Providing Turnkey Solutions*
- > **Analytical Testing**  
*Ensuring Process Purity*
- > **Equipment Installation and Commissioning**  
*Optimizing Systems in Your Environment*
- > **Equipment Training**  
*Instilling Knowledge to Uphold User Safety*
- > **Equipment Maintenance & Repairs**  
*Minimizing Operational Disruptions*

Whatever your gas delivery need may be, you can depend on the AES team to provide you with the high and ultra high purity solutions that meet the latest standards for quality, precision, and safety in your field – and that are proven in practice to drive repeatable success.

To learn more, visit [www.appliedenergysystems.com](http://www.appliedenergysystems.com) today.





Time and time again, we hear our customers say, **"I hear you're the people to go to."** And we are.



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