



## Gas Cabinets

VERSA-GAS™ vSource™ Gas Cabinets address diverse high purity gas delivery requirements across a variety of environments, with safety top of mind. Every vSource™ model is designed to ensure reliable, safe delivery and storage of hazardous and non-hazardous process and purge gases, and comes in a variety of configurations to fit distinct process demands.

### INDUSTRIES

- Universities & Research Laboratories
- Industrial/ Manufacturing
- PV & Solar
- Pharma & Biotech

### DESIGN STANDARDS

- Conforms to SEMI S2 Standards
- Conforms to Uniform and International Building and Fire Codes
- Pressure Tested @ 110% Maximum Operating Pressure for 4 Hours
- Helium Leak Tested to  $1 \times 10^{-9}$  atm-cm<sup>3</sup>/sec

### FEATURES

- Continuous System Monitoring and Control
- User Definable Alarms and System Limits
- Automatic System Shutdown
- Class 100 Cleanroom Welding
- 316 L Stainless Steel Construction
- 15 Ra. Max Component Internal Material Finish
- UHP Springless Diaphragm Valves
- Tied Diaphragm Pressure Regulators
- Orbitally Welded Manifold Components



**VERSA-GAS™** supplies safe, reliable high purity gas delivery and distribution systems, equipment, and control technology for a diverse range of industry needs and applications. These solutions are built to cost-effectively address diverse requirements with safety top of mind.

**Manual**  
vSource™ Cabinets



**Standard Features:**

- Recommended for Use with Non-Hazardous & Inert Gases
- vSource™ Gas Delivery Manual Manifolds
  - > 2-Valve
  - > 3-Valve
- Rigid Pigtail with CGA Cylinder Connection

**Control:**

Not Applicable

**Semi Automatic**  
vSource™ Cabinets



**Standard Features:**

- Recommended for Use with Hazardous Gases- Flammable
- vSource™ Semi Automatic Gas Manifolds
  - > 7-Valve
  - > 9-Valve (Autoswitchover)
- vSource™ 2-Valve Manual Purge Panel
- Manual Purge Process
- Monitors System Conditions
- Visual and Audible Warning Alarms
- Automatic System Shutdown in the Event of a Sensor Trip
- Abort Button for Manual Shutdown
- Rigid Pigtails with CGA Cylinder Connections
- Manually Actuated Valves
- Pneumatic Emergency Shutoff Valve

**Control:**

- vRun™ ESS Controller
- vRun™ Dual ESS Controller

**Automatic**  
vSource™ Cabinets



**Standard Features:**

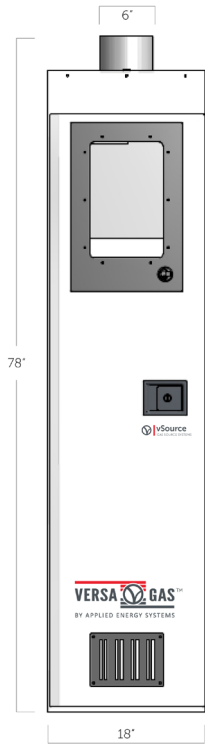
- Recommended for Use with Highly Hazardous Gases- Flammable, Pyrophoric, Toxic, & Corrosive
- vSource™ Automatic Gas Manifolds
  - > 7-Valve
  - > 11-Valve (Autoswitchover)
- vSource™ 2-Valve Manual Purge Panel
- Automatic Purge Process
- Monitors System Conditions
- Visual and Audible Warning Alarms
- Automatic System Shutdown in the Event of a Sensor Trip
- Pneumatic Emergency Off Button
- Rigid Pigtails with CGA Cylinder Connections
- Pneumatically Actuated Valves

**Control:**

- vRun™ HPM II Controller
- vRun™ HPM III Controller

**Note:** All vSource™ Gas Cabinets can be customized to meet unique specifications. Contact your VERSA-GAS™ sales rep for details.

### 1 Cylinder vSource™ Cabinets



**Dimensions:**

- 78" H x 18" W x 22" D
- 1880 mm H x 458 mm W x 559 mm D

**Weight (not including cylinder):**

325 lbs.

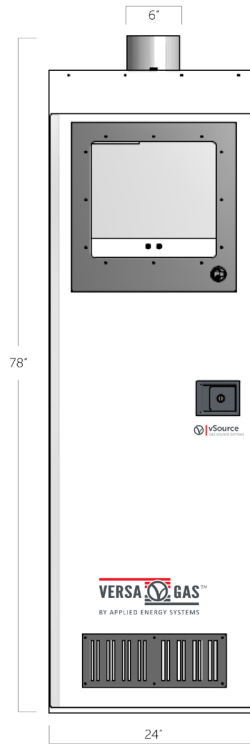
**Exhaust Stack:**

- 6" Diameter
- 4" H

**Configurations:**

- Process

### 2 Cylinder vSource™ Cabinets



**Dimensions:**

- 78" H x 24" W x 22" D
- 1880 mm H x 610 mm W x 559 mm D

**Weight (not including cylinders):**

400 lbs.

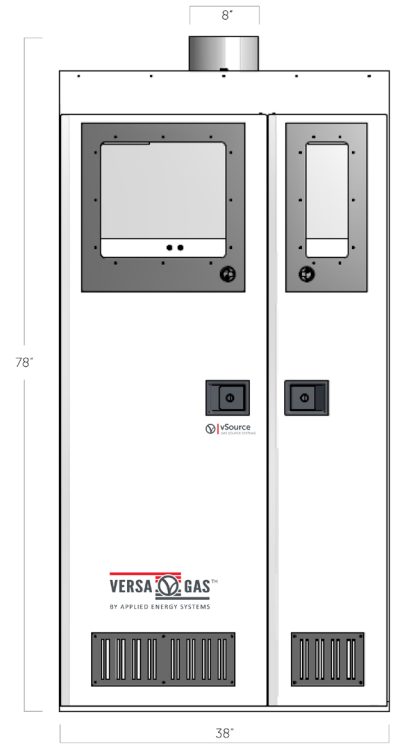
**Exhaust Stack:**

- 6" Diameter
- 4" H

**Configurations:**

- Process-Process
- Process-Purge
- Process-Process-Xover

### 3 Cylinder vSource™ Cabinets



**Dimensions:**

- 78" H x 38" W x 22" D
- 1880 mm H x 966 mm W x 559 mm D

**Weight (not including cylinders):**

550 lbs.

**Exhaust Stack:**

- 8" Diameter
- 4" H

**Configurations:**

- Process-Process-Process
- Process-Process-Purge
- Process-Process-Purge-Xover

**Note:** All vSource™ Gas Cabinets can be customized to meet unique specifications. Contact your VERSA-GAS™ sales rep for details.

### ENCLOSURE MATERIALS OF CONSTRUCTION

- Corrosion Resistant All Welded 11 Ga Steel Enclosure
- Powder Coated Drylac Paint Finish
  - > Glossy Bright White RAL 9003
  - > Glossy Granite Gray RAL 7026
- Lockable, 1/4" Thick Wire Reinforced Glass Windows
- Lockable, Self-Closing Doors
- Air Intake Door Louvers
- Top Mounted Exhaust Stack
- Flush-Mounted Paddle Door Latch
- Heavy Cast Aluminum, Adjustable Cylinder Brackets
- Lexan® Polycarbonate Face Shield
- Durable, Corrosion Proof, Non-Skid Floor Mat
- UL Approved Fire Sprinkler



### FACILITIES

#### Water Supply for Sprinkler:

- Temp Rating: 155°F
- Connection: 1/2" MNPT
- Orifice Size: 0.50"
- Water Usage: 7-36 gpm
- K-Factor: 5.6
- Flowing Pressure: 7 PSIG
- Non-flowing Pressure: 175 PSIG

#### Vacuum Venturi Supply:

- Pressure: 75 - 85 PSIG
- Usage: 60 slpm
- Gas: N<sub>2</sub> Filtered to 1.0 um
- Connection: 1/4" Female Face Seal

#### Electrical:

- See Controller Specifications

#### Operating Temperatures:

- 32°F - 100°F

#### Relative Humidity:

- 5 -95% Non-condensing

#### Process Gas Outlet:

- 1/4" VCR Face Seal

#### Purge Gas Inlet:

- 1/4" VCR Face Seal

#### Pneumatic Gas Supply:

- Gas: Nitrogen or CDA
- Pressure: 75 - 85 PSIG
- Connection: See Controller Specifications

#### Air Flow \*:

- 1CE: 110 scfm @ 0.20" H<sub>2</sub>O
- 2CE: 170 scfm @ 0.15" H<sub>2</sub>O
- 3CE: 180 scfm @ 0.15" H<sub>2</sub>O

\* Air Flow requirements are conservative estimates and are not applicable for Silane. Actual requirements will vary according to gas. Consult an AES representative for application-specific calculations.

**Note:** All vSource<sup>TM</sup> Gas Cabinets can be customized to meet unique specifications. Contact your VERSA-GAS<sup>TM</sup> sales rep for details.

**OPTIONS**

- Gas Cylinder Heating
- Panel Heat Tracing
- Cylinder Ramps
- UV-IR Fire Sensors
- High Flow Outputs
- Remote System Communications
- Moisture, Oxygen, Hydrocarbon Purity Testing
- Dual Stage System Regulators
- Cylinder Scales
- DISS Cylinder Fittings
- Lecture Bottle Holders
- Flexible Pigtails
- Side Mounted Purge Panels
- Exhaust Pressure Switches
- Adjustable Cylinder Shelves
- Hazardous Gas Detectors
- Class I Division II Compliance (Controller Z-Purge Kit)
- LED Status Light Towers
- CGA/DISS Torque Wrenches
- Rate of Rise Heat Detectors
- Door Switch Monitors
- Outlet Filters
- Custom Paint & Graphics
- Private Labeling
- Coaxial Process Gas Outlets
- Dual Cylinder Restraints
- Mini Gas Cabinet Enclosures
- Outdoor, Weather-Resistant Enclosures



## Brought to You By Applied Energy Systems

Singularly focused on excellence in gas delivery, customers turn to Applied Energy Systems (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 power process innovation for hundreds of organizations worldwide.

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 exceed the latest standards for quality, precision, and safety in your field – and that are proven in practice to drive repeatable success.