

## IGC Series Gas Cabinets for Indoor Installations

### Key Features

---

**All Welded Construction (11-gauge Steel)**

Provides Extra Structural Strength

---

**Epoxy Painted, Textured Finish Outside**

Enhances Cabinet Appearance

---

**Louvered Panel on Base of Door(s)**

Ensures Maximum Air Flowing Through the Cabinet

---

**Adjustable Cylinder Chain Restraint**

Accept a wide range of cylinder sizes and secures cylinders / prevents tilting

---

**Lockable Access Panel Door**

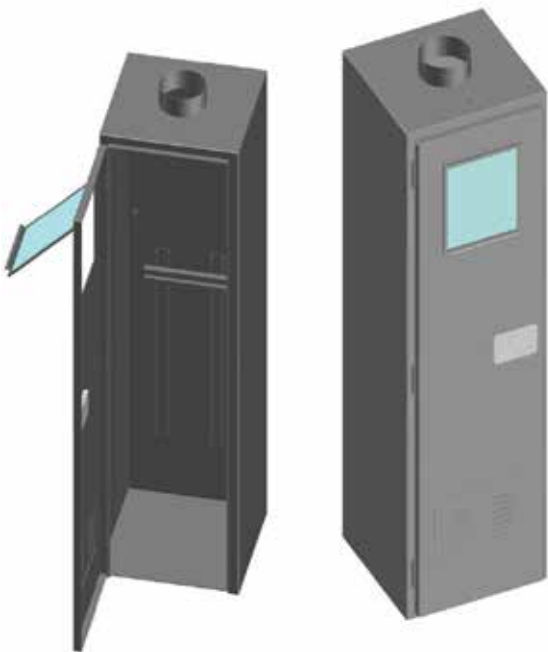
Provides Access to Cabinet Interior While Maintaining Integrity of the Reinforced Window

---

**Available in Four (4) Sizes**

Single, double, triple and quadruple cylinders

---



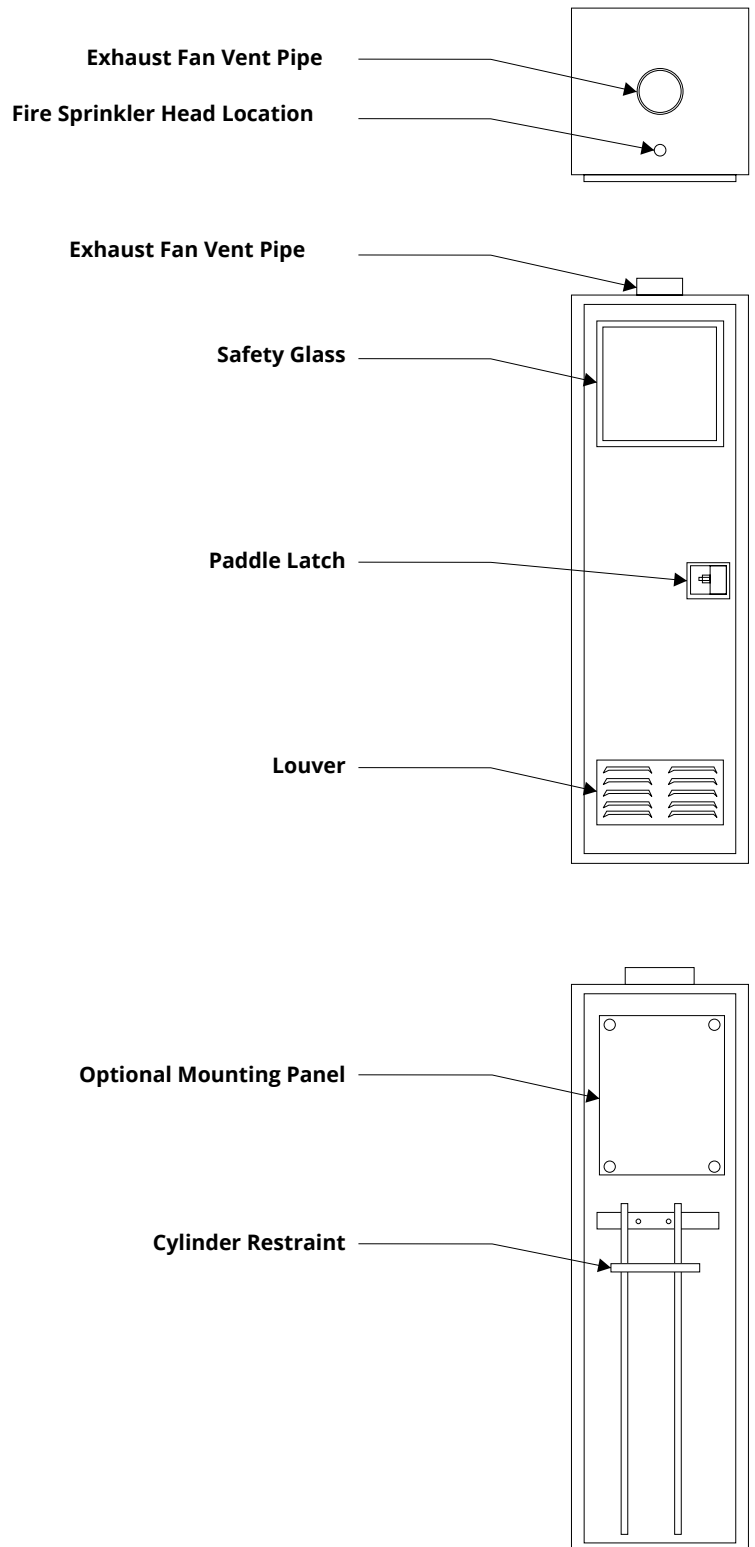
## Gas Cabinets for Indoor Installations

### Description

**Safety & Monitoring** - Gas cylinder cabinets are designed to provide a safe and cost effective means of isolating hazardous gas cylinders from the surrounding workplace. Cylinders, valves and purge assemblies are isolated from accidental contact, vandals and other assemblies, thus avoiding leaks. Windows permit visual inspection and a panel allows access into the cabinet for adjustments of regulators and valves while minimizing operator exposure to potential leaks of hazardous gases. Optional water sprinkler heads on ceiling of cabinet activate between 160°F and 165°F and are coated for protection from corrosive environments.

**Exhausting** - The cabinet exhaust vent is designed to be coupled with an exhaust fan (to be supplied by others). The exhaust vent is located on the top of the cabinet. Louvers allow air to enter the cabinet for exhausting. They are located on the lower part of the door, which provides maximum coverage of air flow through the cabinet. When cylinder shelves are used, the shelves are perforated in order to allow maximum air flow through the cabinet. Optional mounting plate, which can mount valves, regulators and purge assemblies is mounted to facilitate air flow behind the panel for complete internal cabinet exhausting.

**Customizing** - The IGC Series Gas Cabinets are available in one to four cylinder configurations. The IGC Gas Cabinets can be customized to fit your specific needs as several options are available; including water sprinklers, removable mounting panels, keyed door latches and much more.



## Gas Cabinets for Indoor Installations

### Construction

All cabinets are constructed using 11-gauge thick steel. Subflooring is provided to minimize rusting of the cabinet bottom. Adjustable cylinder brackets allow for precise fitting to pigtails. The cabinet door and clear fire-rated window will close and latch automatically. Welding is used wherever possible in order to achieve maximum strength and to aid in easy removal of components for repair and/or replacement. All fasteners used to mount components such as windows, door handles, mounting panels and cylinder brackets are made of stainless steel.

The inside cabinet surface is smooth to maintain a clean finish and the outside surface is slightly textured to maintain appearance.

### Service Requirements

#### Ventilation

Depending upon the cabinet size, a 4," 6" or 8" diameter duct connection will be provided. It must be connected to a dedicated gas service exhaust duct made of galvanized steel or stainless steel (provided by others). The air extractor/fan/blower (provided by others) has to be capable of performing 13 air changes per minute at .65" W.C. static pressure. Other important criteria must also be considered in the selection of the extractor/fan/blower for your gas cabinet, including the potential for chemical reactivity, corrosion, fire and explosion occurring.

#### Water for Sprinkler

The inlet of the water sprinkler is 1/2" F.NPT. The piping must be capable of supplying water at 35-40 GPM at 40 PSI.

### Architects, Engineers & Contractors

#### Anchoring

Position, level and secure the gas cabinet to the floor with four 1/2" (M12) diameter bolts (supplied by others).

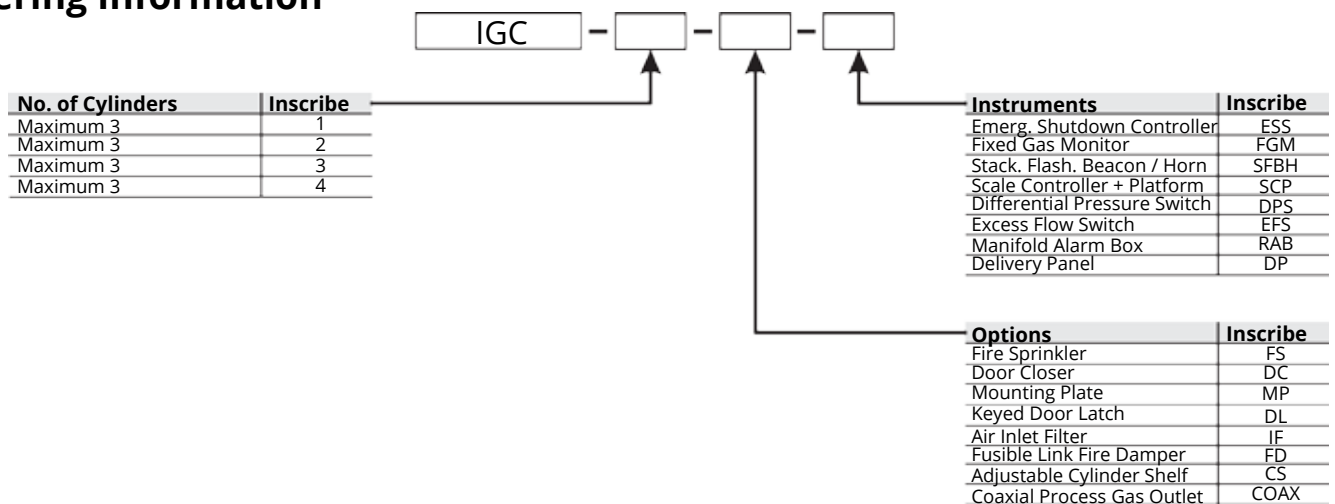
#### Air Flow Switch

An airflow switch (provided by others) installed in the duct work is recommended.

### Materials

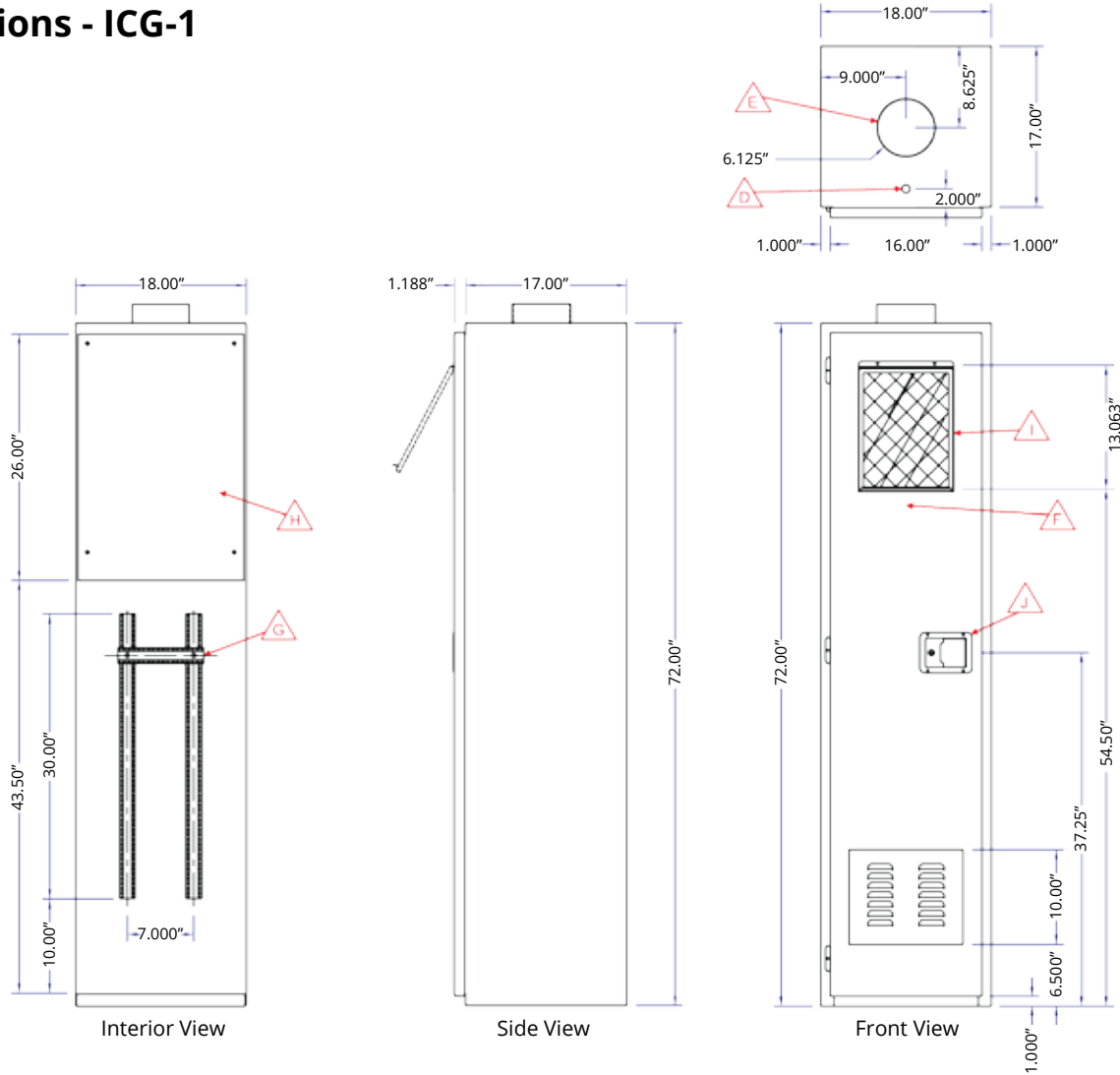
<b>Enclosure</b>	Material: Steel - Paint: Epoxy Coated - Color: Light Gray - Thickness: 11-Gauge
<b>Window</b>	Thickness: 1/4"
<b>Optional Sprinkler</b>	Activation: 160-165°F - Coating: Bee's Wax
<b>Paddle Latch</b>	Stainless Steel with Teflon

### Ordering Information



## Gas Cabinets for Indoor Installations

### Dimensions - ICG-1



#### Notes

##### A) Code compliance:

Meet or exceeds article 80 of the uniform fire code requirements.

##### B) Construction:

Cabinet material is 11-gauge cold rolled steel with welded seams.  
Neoprene gaskets with oil resistant adhesive.  
Paint is epoxy; interior is white (smooth finish) and exterior is light gray (textured)  
Door latches in three places.

##### C) Door Closure: Automatic door closure is included

##### D) Sprinkler Head:

Inlet connection is 1/2" M.NPT at roof.  
Sprinkler head is provided within cabinet.  
Static (non flowing) pressure: 175 psig max.  
Dynamic (flowing) pressure: 7 psig min.  
Water usage: 7 to 36 GPM depending on water pressure.

##### E) Exhaust Connection:

Duct connection is 6.125" Diameter  
Suitable for intended process gas  
Window open duct flow: minimum 100 scfm at 0.75" H<sub>2</sub>O  
Window closed flow: minimum 25 scfm at 0.75" H<sub>2</sub>O.  
Ventilation system (extractor) to be supplied by others.

##### F) Gas Identification

Gas name, gas formula, and NFPA 704 hazard  
Information to be displayed on the enclosure door.

##### G) Cylinder Restraint

Cylinder restraint is provided with the cabinet.

##### H) Mounting Panel

Gas control components are installed on the mounting  
Panel inside the cabinet.

##### I) Reinforced Window

The access window open from the bottom up.

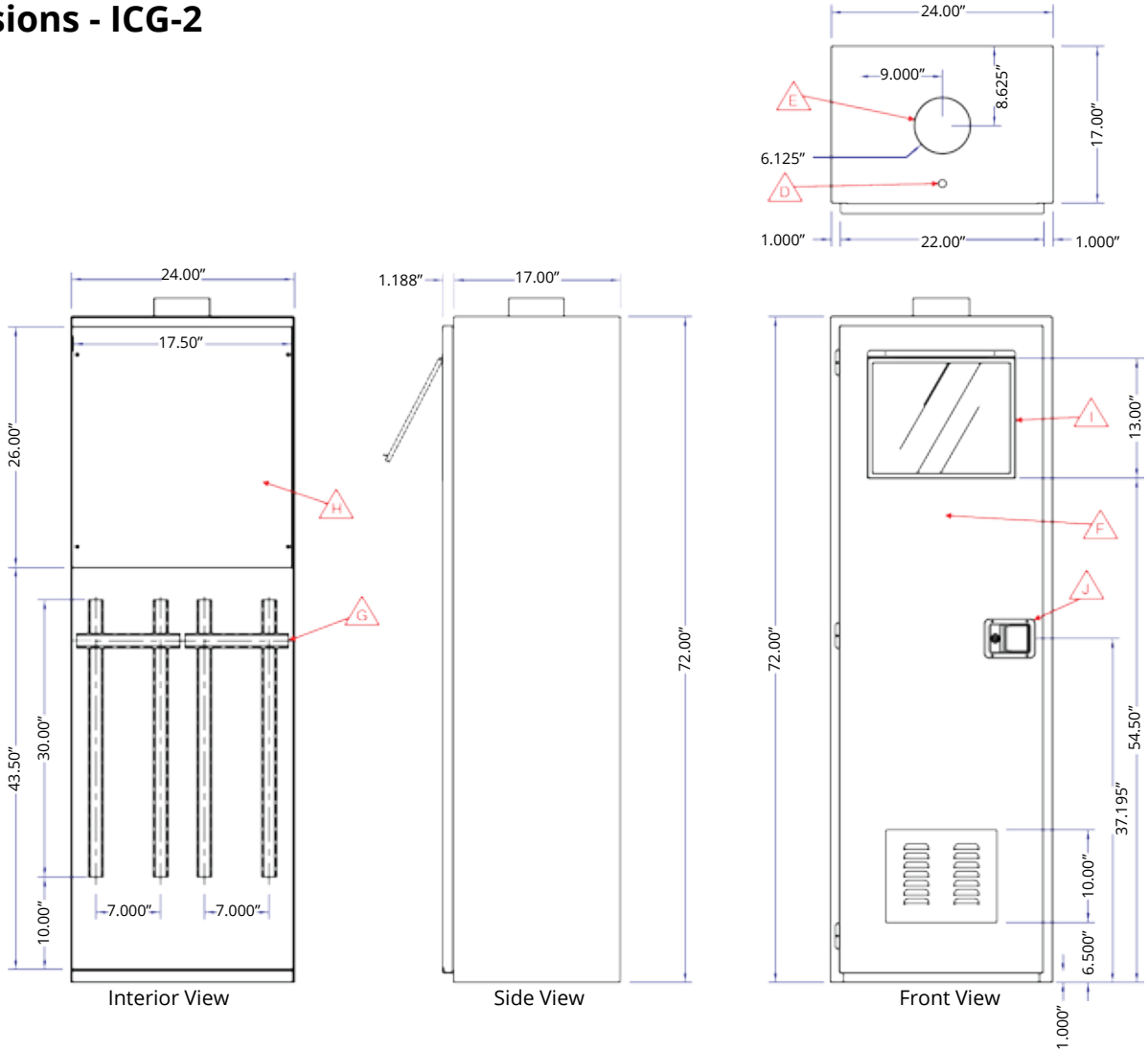
##### J) Lockable Door Latch

#### Not included with this gas cabinet:

- Mechanical ventilation (extractor)
- Vacuum generator supply connection
- Vent from vacuum generator pressure
- Gas cabinet controller
- Venturi vacuum pneumatic gas supply
- Photohelic pressure differential switch and gauge

## Gas Cabinets for Indoor Installations

### Dimensions - ICG-2

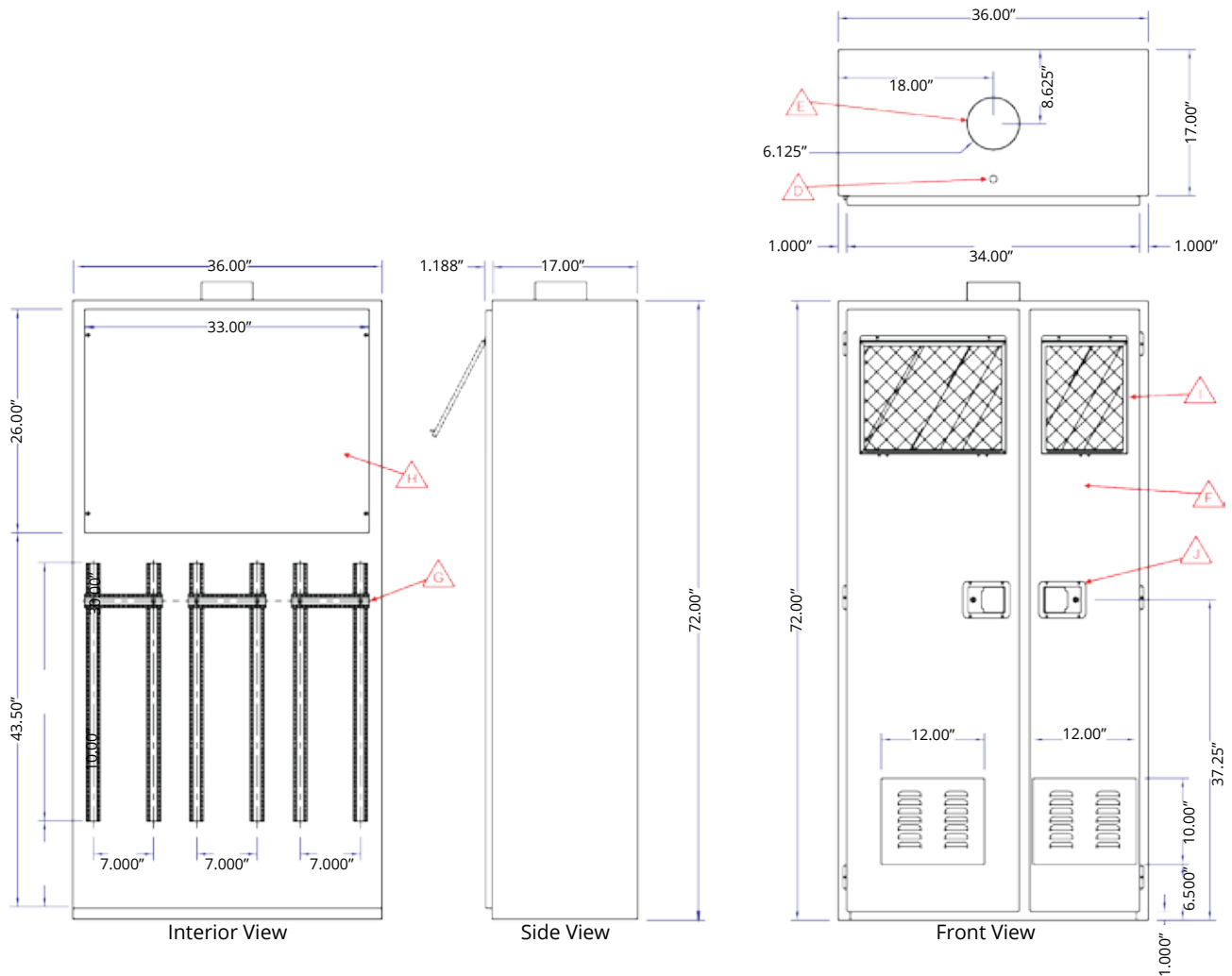


#### Notes

- A) Code compliance:  
Meet or exceeds article 80 of the uniform fire code requirements.
- B) Construction:  
Cabinet material is 11-gauge cold rolled steel with welded seams.  
Neoprene gaskets with oil resistant adhesive.  
Paint is epoxy; interior is white (smooth finish) and exterior is light gray (textured)  
Door latches in three places.
- C) Door Closure: Automatic door closure is included
- D) Sprinkler Head:  
Inlet connection is 1/2" M.NPT at roof.  
Sprinkler head is provided within cabinet.  
Static (non flowing) pressure: 175 psig max.  
Dynamic (flowing) pressure: 7 psig min.  
Water usage: 7 to 36 GPM depending on water pressure.
- E) Exhaust Connection:  
Duct connection is 6.125" Diameter  
Suitable for intended process gas  
Window open duct flow: minimum 100 scfm at 0.75" H<sub>2</sub>O  
Window closed flow: minimum 25 scfm at 0.75" H<sub>2</sub>O.  
Ventilation system (extractor) to be supplied by others.
- F) Gas Identification  
Gas name, gas formula, and NFPA 704 hazard  
Information to be displayed on the enclosure door.
- G) Cylinder Restraint  
Cylinder restraint is provided with the cabinet.
- H) Mounting Panel  
Gas control components are installed on the mounting  
Panel inside the cabinet.
- I) Reinforced Window  
The access window open from the bottom up.
- J) Lockable Door Latch
- Not included with this gas cabinet:**
- Mechanical ventilation (extractor)
  - Vacuum generator supply connection
  - Vent from vacuum generator pressure
  - Gas cabinet controller
  - Venturi vacuum pneumatic gas supply
  - Photohelic pressure differential switch and gauge

## Gas Cabinets for Indoor Installations

### Dimensions - ICG-3



#### Notes

##### A) Code compliance:

Meet or exceeds article 80 of the uniform fire code requirements.

##### B) Construction:

Cabinet material is 11-gauge cold rolled steel with welded seams.  
 Neoprene gaskets with oil resistant adhesive.  
 Paint is epoxy; interior is white (smooth finish) and exterior is light gray (textured)  
 Door latches in three places.

##### C) Door Closure: Automatic door closure is included

##### D) Sprinkler Head:

Inlet connection is 1/2" M.NPT at roof.  
 Sprinkler head is provided within cabinet.  
 Static (non flowing) pressure: 175 psig max.  
 Dynamic (flowing) pressure: 7 psig min.  
 Water usage: 7 to 36 GPM depending on water pressure.

##### E) Exhaust Connection:

Duct connection is 6.125" Diameter  
 Suitable for intended process gas  
 Window open duct flow: minimum 100 scfm at 0.75" H<sub>2</sub>O  
 Window closed flow: minimum 25 scfm at 0.75" H<sub>2</sub>O.  
 Ventilation system (extractor) to be supplied by others.

##### F) Gas Identification

Gas name, gas formula, and NFPA 704 hazard  
 Information to be displayed on the enclosure door.

##### G) Cylinder Restraint

Cylinder restraint is provided with the cabinet.

##### H) Mounting Panel

Gas control components are installed on the mounting  
 Panel inside the cabinet.

##### I) Reinforced Window

The access window open from the bottom up.

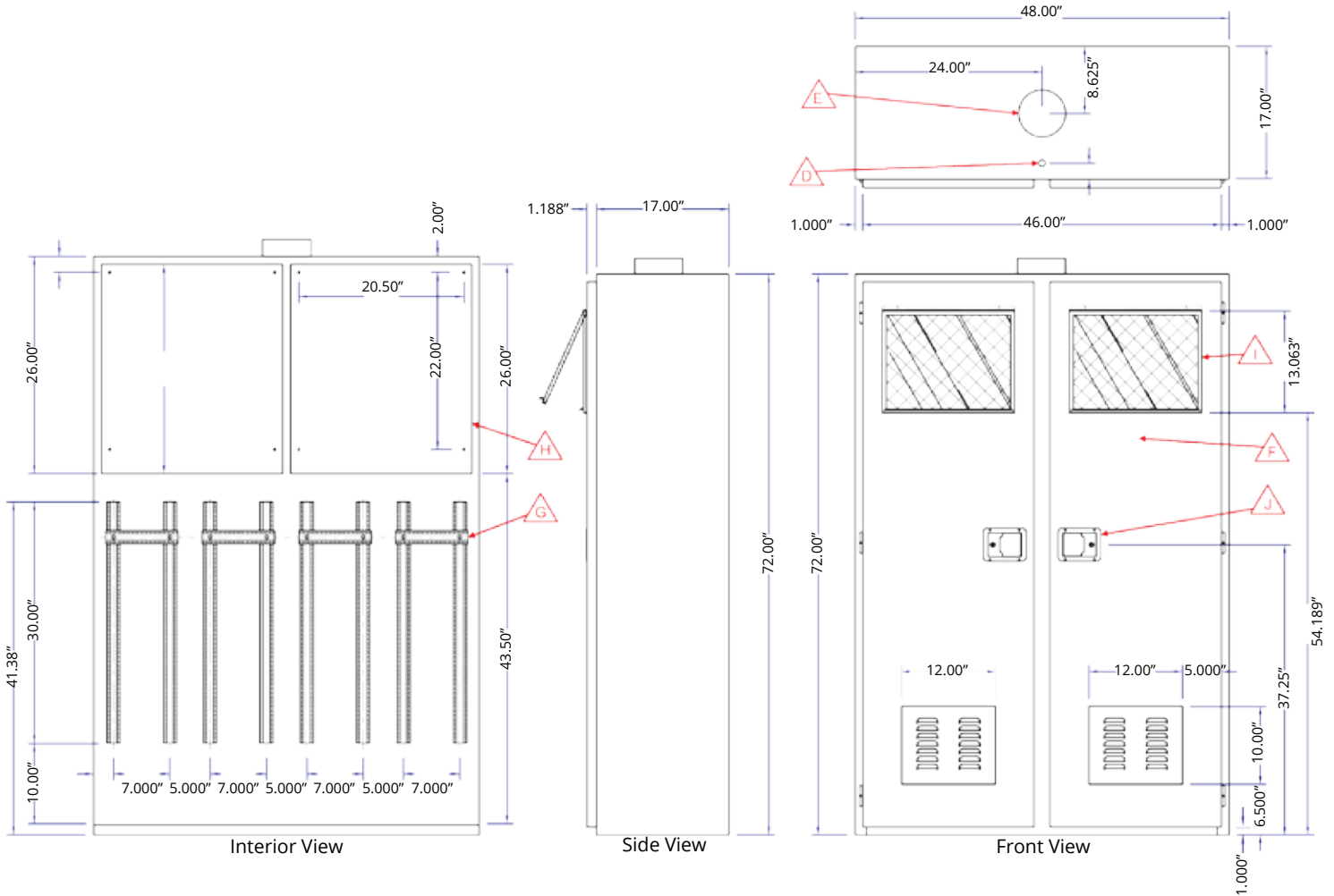
##### J) Lockable Door Latch

#### Not included with this gas cabinet:

- Mechanical ventilation (extractor)
- Vacuum generator supply connection
- Vent from vacuum generator pressure
- Gas cabinet controller
- Venturi vacuum pneumatic gas supply
- Photohelic pressure differential switch and gauge

## Gas Cabinets for Indoor Installations

### Dimensions - ICG-4



#### Notes

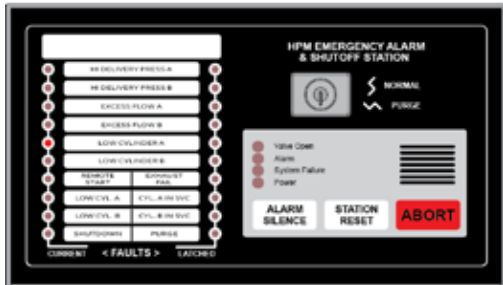
- A) Code compliance:  
Meet or exceeds article 80 of the uniform fire code requirements.
- B) Construction:  
Cabinet material is 11-gauge cold rolled steel with welded seams.  
Neoprene gaskets with oil resistant adhesive.  
Paint is epoxy; interior is white (smooth finish) and exterior is light gray (textured)  
Door latches in three places.
- C) Door Closure: Automatic door closure is included
- D) Sprinkler Head:  
Inlet connection is 1/2" M.NPT at roof.  
Sprinkler head is provided within cabinet.  
Static (non flowing) pressure: 175 psig max.  
Dynamic (flowing) pressure: 7 psig min.  
Water usage: 7 to 36 GPM depending on water pressure.
- E) Exhaust Connection:  
Duct connection is 6.125" Diameter  
Suitable for intended process gas  
Window open duct flow: minimum 100 scfm at 0.75" H<sub>2</sub>O  
Window closed flow: minimum 25 scfm at 0.75" H<sub>2</sub>O.  
Ventilation system (extractor) to be supplied by others.
- F) Gas Identification  
Gas name, gas formula, and NFPA 704 hazard  
Information to be displayed on the enclosure door.
- G) Cylinder Restraint  
Cylinder restraint is provided with the cabinet.
- H) Mounting Panel  
Gas control components are installed on the mounting  
Panel inside the cabinet.
- I) Reinforced Window  
The access window open from the bottom up.
- J) Lockable Door Latch
- Not included with this gas cabinet:**
- Mechanical ventilation (extractor)
  - Vacuum generator supply connection
  - Vent from vacuum generator pressure
  - Gas cabinet controller
  - Venturi vacuum pneumatic gas supply
  - Photohelic pressure differential switch and gauge

## Gas Cabinets for Indoor Installations

### Gas Cabinet Instruments

Each of the instrument/equipment mentioned below is thoroughly described in individual specification sheets. You can find these find these on our website at [www.beaconmedaes.com](http://www.beaconmedaes.com).

#### Emergency Shutdown Controller (ESS)



This unit acts in two (2) ways. It is used to warn the operator about the status of different instruments installed on the gas cabinet. It is also used to automatically shutdown the gas supply in case of emergency.

#### Gas Monitor (FGM)



Gas monitors are a requirement of NFPA 55 for toxic gases. They are also used for flammable gases as well.

#### Flashing Beacon with Horn (SFBH)



The flashing beacon with horn can be activated by any of the other instrumentation shown on this page.

#### Scale Controller and Platform (SCP)



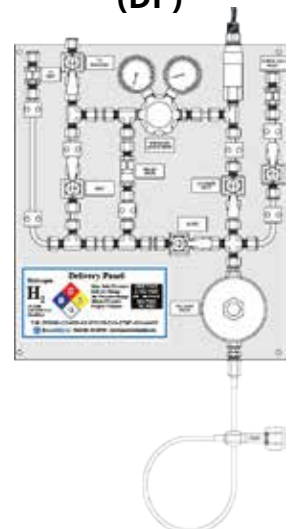
The scale controller and related platform monitors the gas cylinder net weight. Once the net content of the gas cylinder drops below a critical level. The scale controller can be tied to the emergency shutdown controller or work as a stand-alone unit.

#### Differential Pressure Switch (DPS)



The differential pressure switch monitors the pressure inside the exhaust fan duct. It sends a signal to the emergency shutdown controller.

#### Delivery Panels (DP)



Several delivery panels are available in different configurations which vary upon the required task.

#### Excess Flow Switch (EFS)



The excess flow switch is generally used with explosive gases (primarily with hydrogen). The excess flow switch is linked to the emergency shutdown controller.

#### Manifold Alarm Boxes (RAB)



The manifold alarm box indicates the status (content go or no-go) of the gas cylinders.