

TAILORED GAS SYSTEMS AND GAS PANELS FOR VARIOUS WAFER PRODUCTION TECHNOLOGIES

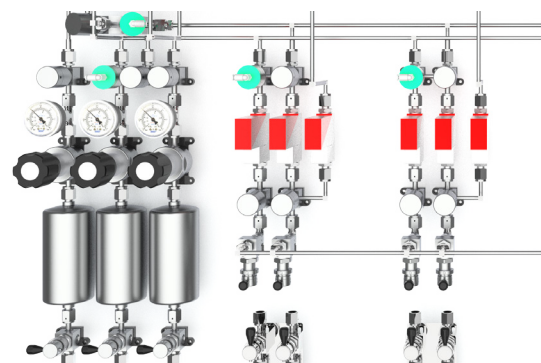
SVCS takes advantage of many years of experience in manufacturing tailored gas panels and gas systems for various wafer production technologies, as well as various R&D customized panels. SV-DELI gas delivery system family offers a high level of technical design, components from the world leaders and a fully automatic control system with independent safety functions.



Ultra High Purity

Features and Benefits

- | Fully automatic control system with Touchscreen display
- | Automatic cycle purging
- | Cylinder pressure or cylinder weight monitoring
- | Pressure transducer for output pressure monitoring
- | Excess flow switch
- | Programmable cylinder pressure or weight limits for auto changeover
- | External digital inputs and outputs
- | Multiple level password protection for various operation modes
- | Ethernet interface for LAN connection



AGC | VMB | Gas Panels



AGC Automatic Gas Cabinets

- | Open, wall mounted systems (for inert gases) depending on configuration
- | 1-cylinder cabinet, with purge gas from external source
- | 2-cylinder cabinet
 - | 2 process gas cylinders, w/purge gas from ext. source + auto changeover
 - | 1 process gas cylinder, 1 purge gas cylinder
- | 3-cylinder cabinet (2 × process + 1 × purge), with auto changeover

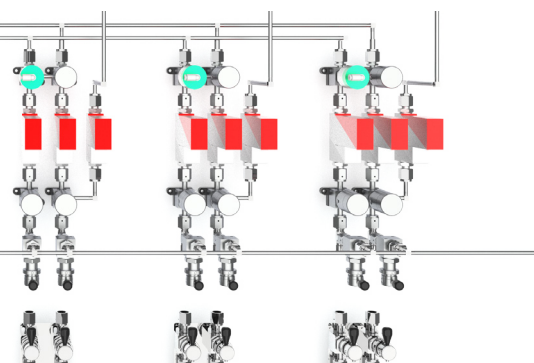
VMB Valve Manifold Boxes

- | 2 typical modifications: 2-4 and 5-8 independent outputs
- | A wide range of automation: from manual control to fully automatic
- | Optional connection to the integrated control system SVCS Super Visor
- | Process gas leak detection
- | Hazardous gases detection and ventilating the space of gas panels

Gas Panels

- | Orbital welded, manufactured and assembled in 10/100 Cleanroom
- | 100 % Helium leak test and functional test of all individual components before/after welding and panel assembly
- | Tubing, fittings, valves, pressure regulators, filters, flow devices and MFCs with either metal face or butt weld connections
- | Surface roughness Ra max. 10 µinch or better
- | Very low internal volume achieved by using special mini-weld heads
- | Compact internal vacuum generator for cycle purging

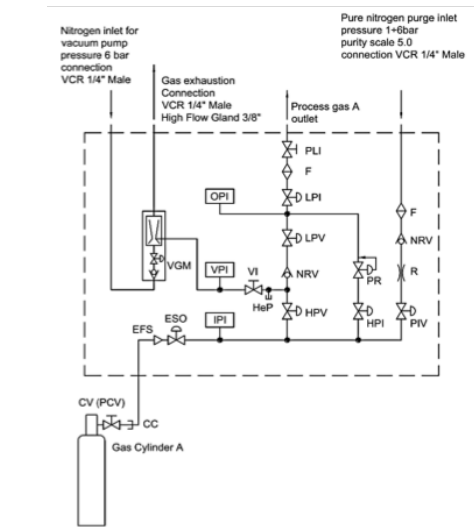
Gas Delivery Systems



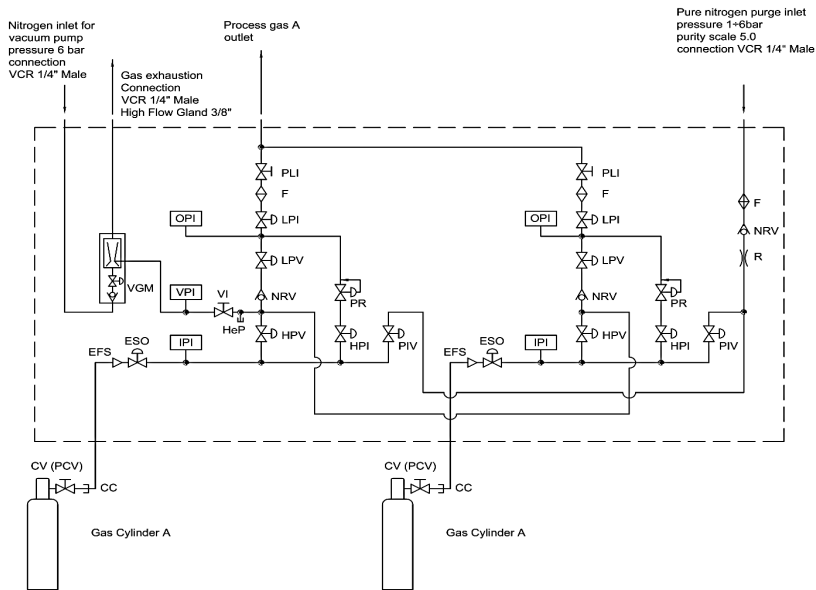
Optional

- | Tailored gas panel according to specific customer request
- | Pigtail purging manifold ("deep-purge")
- | Monitoring of presence dangerous gas
- | Pressure monitoring in the coaxial tubing outer containment
- | Additional particle filtering and/or purifying of process and purge gas
- | Analytical testing services and certification for particles, moisture, oxygen and total hydrocarbons

**GC: 1-GAS PANEL VARIANT
(GAS A - EXTERNAL N₂)**



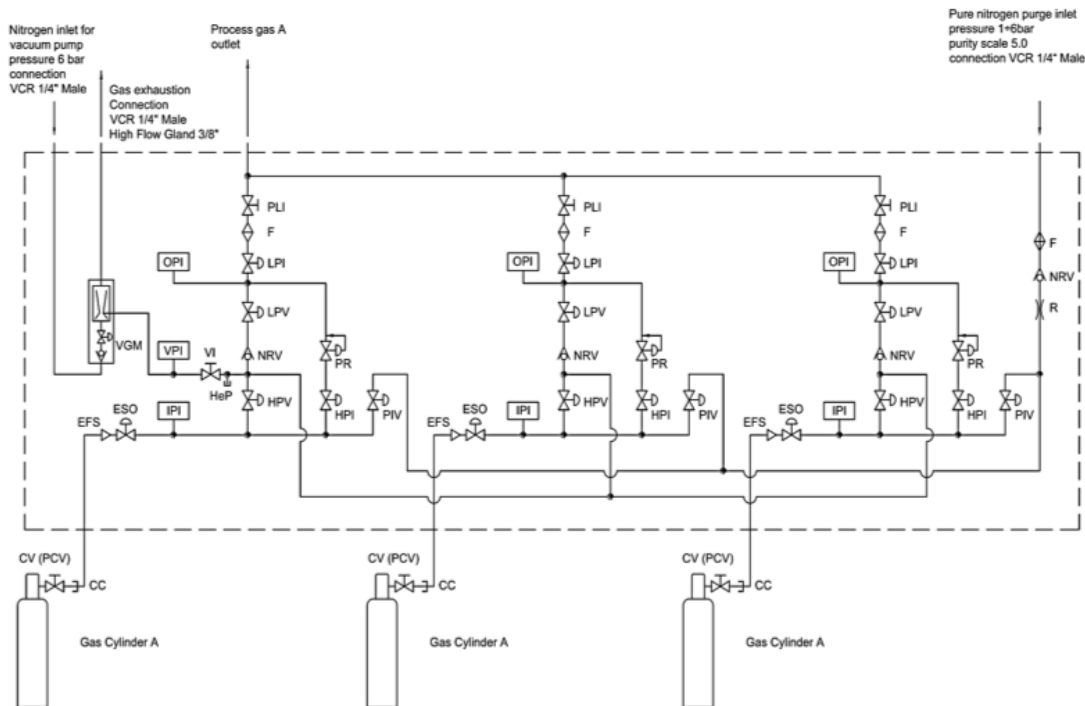
**GC: 2-GAS PANEL VARIANT
(GAS A+A - EXTERNAL N₂)**



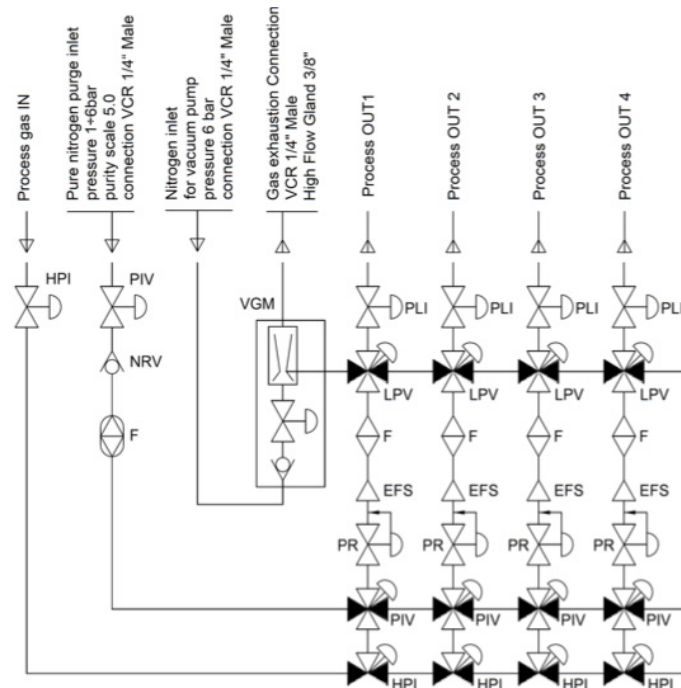
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**GC: 3-GAS PANEL VARIANT
(GAS A+A+A - EXTERNAL N₂)**

3-cylinder cabinet (2 × process + 1 × purge), with auto changeover

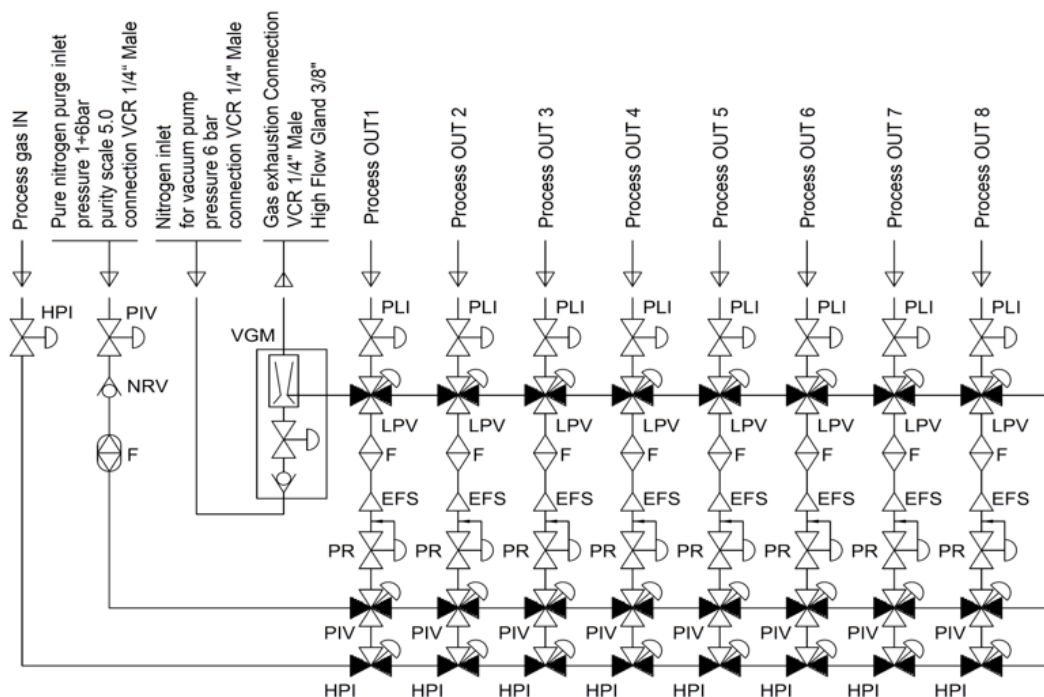


GAS SCHEME: VMB 4-OUTLET VARIANT

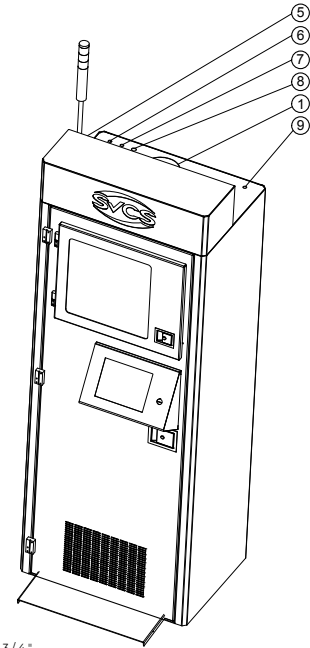
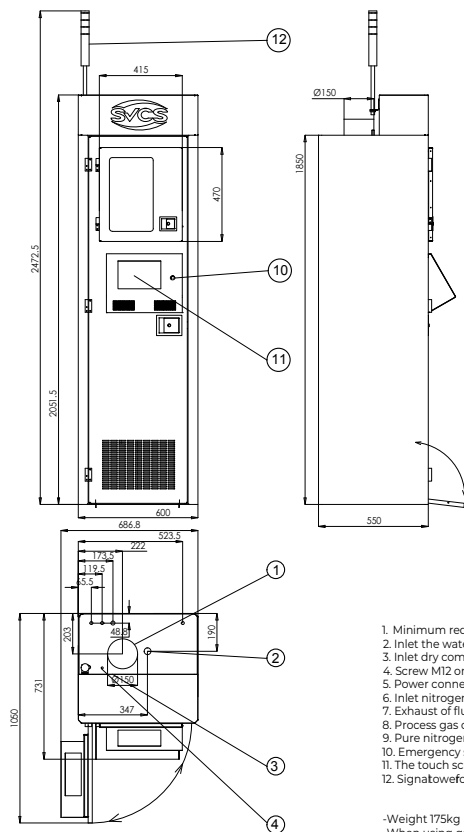


Gas Delivery Systems

GAS SCHEME: VMB 8-OUTLET VARIANT



1-CYLINDER CABINET



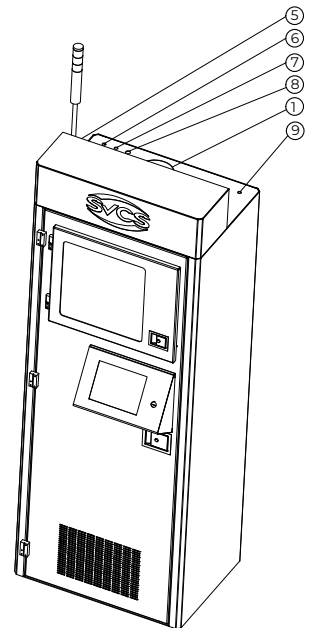
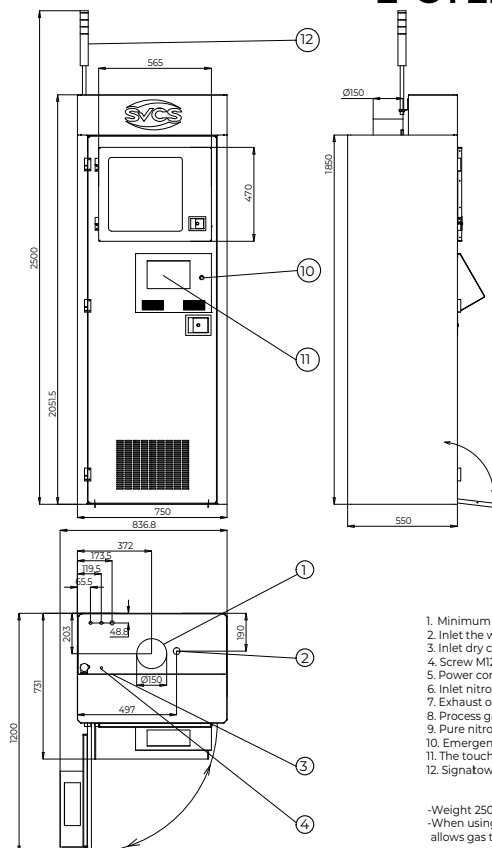
1. Minimum required aeration (at closed window), flow 330 m³/hod.
2. Inlet the water for sprinkler, 2 bar pressure, flow 120 l/min, Connection G 3/4".
3. Inlet dry compress air or nitrogen for pneumatic valves. Pressure from 4.8 to 7.6 Bar. Associated booster clutch 1/4".
4. Screw M12 on grounded for gas cabinet
5. Power connection 230V AC \pm 10%, 50/60 Hz, max. 150 VA.
6. Inlet nitrogen for vacuum pump, pressure from 4.8 to 7.6 Bar of 50 – 60 l/min. Male VCR connection 1/4".
7. Exhaust of flush and vacuum pump, the amount of 50 – 60 l/min. Male VCR connection 1/4". Pipe 3/8".
8. Process gas outlet, possible connection: Coax connection 1/2"-1/4", Orbital weld, VCR 1/4"/High Flow Gland 3/8", VCR 1/4", VCR 1/2".
9. Pure nitrogen inlet for purge, pressure 1 – 6 bar, purity class 5.0, VCR Male connection 1/4"
10. Emergency stop button
11. The touch screen for control system
12. Signalto wefor device status.

-Weight 175kg

-When using gas cabinets is a utility room only from the door. The design of the cabinets allows gas to be built next to each other and the walls of non-combustible materials.

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2-CYLINDER CABINET

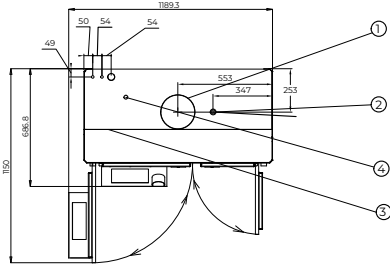
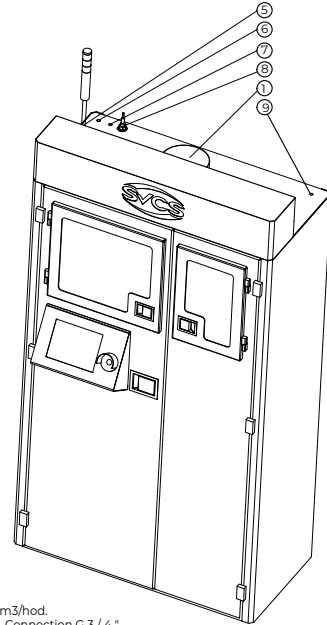
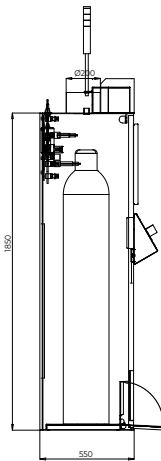
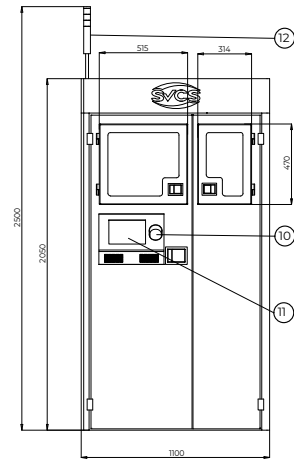


1. Minimum required aeration (at closed window), flow 350 m³/hod.
2. Inlet the water for sprinkler, 2 bar pressure, flow 120 l/min, Connection G 3/4".
3. Inlet dry compress air or nitrogen for pneumatic valves. Pressure from 4.8 to 7.6 Bar. Associated booster clutch 1/4".
4. Screw M12 on grounded for gas cabinet
5. Power connection 230V AC \pm 10%, 50/60 Hz, max. 150 VA.
6. Inlet nitrogen for vacuum pump, pressure from 4.8 to 7.6 Bar of 50 – 60 l/min. Male VCR connection 1/4".
7. Exhaust of flush and vacuum pump, the amount of 50 – 60 l/min. Male VCR connection 1/4". Pipe 3/8".
8. Process gas outlet, possible connection: Coax connection 1/2"-1/4", Orbital weld, VCR 1/4"/High Flow Gland 3/8", VCR 1/4", VCR 1/2".
9. Pure nitrogen inlet for purge, pressure 1 – 6 bar, purity class 5.0, VCR Male connection 1/4"
10. Emergency stop button
11. The touch screen for control system
12. Signalto wefor device status.

-Weight 250 kg

-When using gas cabinets is a utility room only from the door. The design of the cabinets allows gas to be built next to each other and the walls of non-combustible materials.

3-CYLINDER CABINET



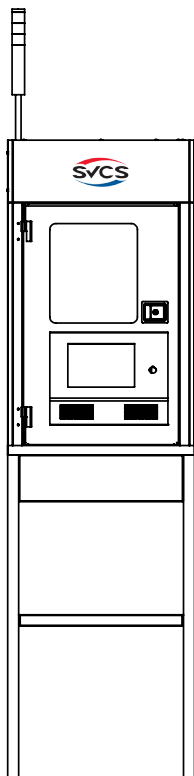
1. Minimum required aeration (at closed window), flow 390 m³/hod.
2. Inlet the water for sprinkler, 2 bar pressure, flow 120 l/min, Connection G 3 / 4 ".
3. Inlet dry compress air or nitrogen for pneumatic valves. Pressure from 4.8 to 7.6 Bar. Associated booster clutch 1 / 4 ".
4. Screw M12 on grounded for gas cabinet.
5. Power connection 230V AC \pm 10%; 50/60 Hz, max. 150 VA.
6. Inlet nitrogen for vacuum pump, pressure from 4.8 to 7.6 Bar of 50 – 60 l/min. Male VCR connection 1 / 4 ".
7. Exhaust of flush and vacuum pump, the amount of 50 – 60 l/min. Male VCR connection 1 / 4 ". Pipe 3 / 8 ".
8. Process gas outlet, possible connection: Coax connection 1 / 2 "-1 / 4", Orbital weld, VCR 1 / 4"/High Flow Gland 3 / 8", VCR 1 / 4", VCR 1 / 2".
9. Pure nitrogen inlet for purge, pressure 1 – 6 bar, purity class 5.0, VCR Male connection 1 / 4 ".
10. Emergency stop button
11. The touch screen for control system
12. Signal tower for device status.

-Weight 320 kg
 -When using gas cabinets is a utility room only from the door. The design of the cabinets allows gas to be built next to each other and the walls of non-combustible materials.

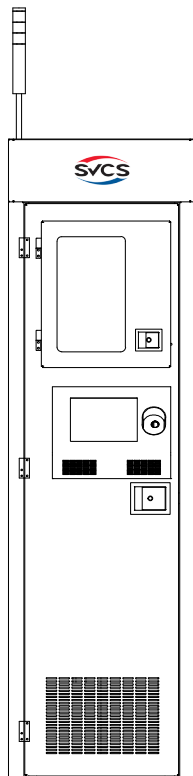
Gas Delivery Systems

GAS/VMB CABINET COMPARISON

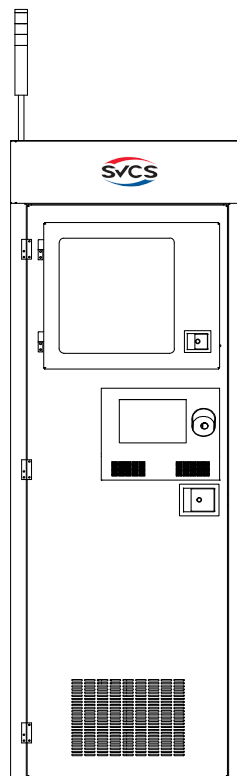
2500mm (incl. Light Tower)



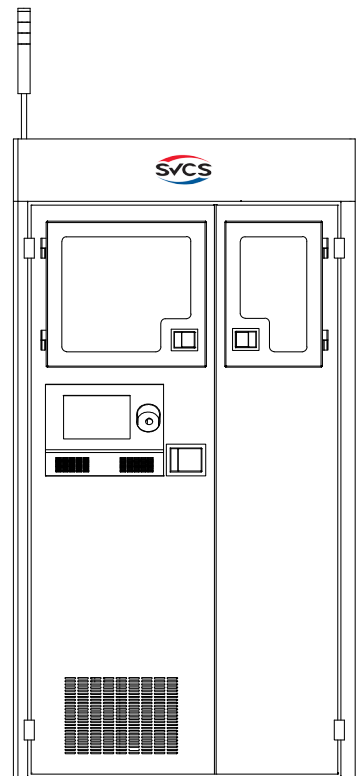
600mm



600mm

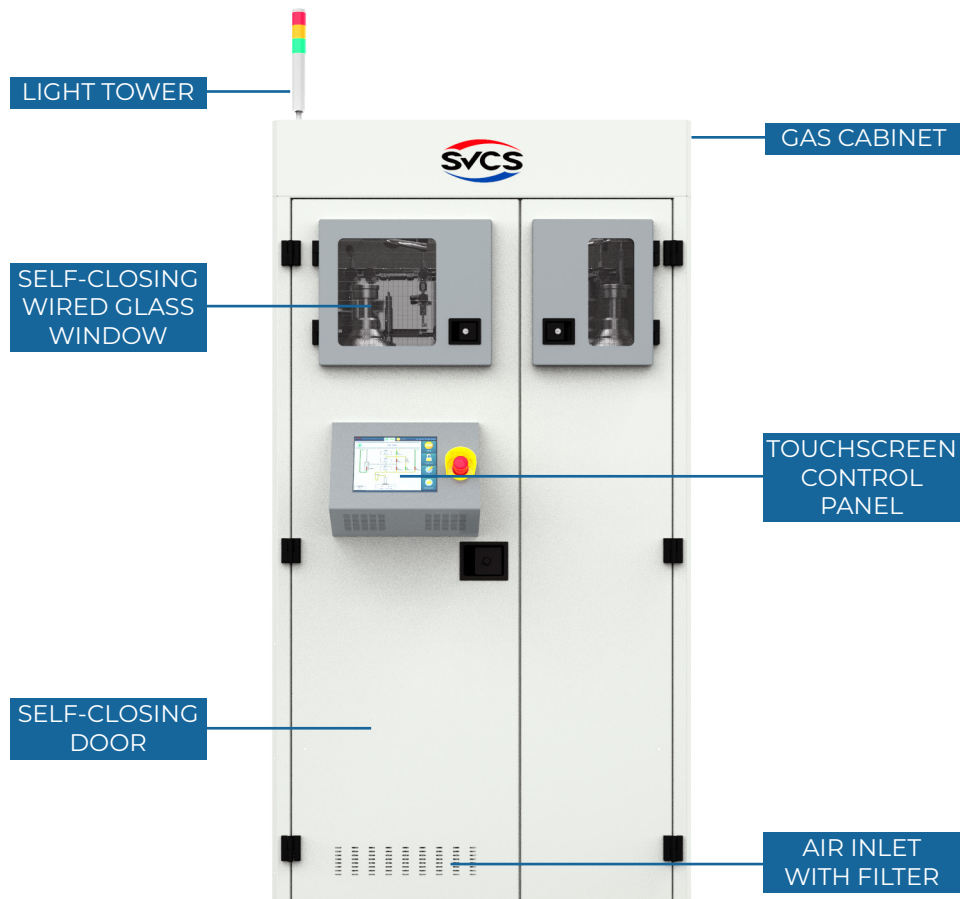


750mm



1100mm

GAS CABINET DESCRIPTION



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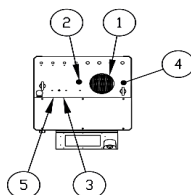
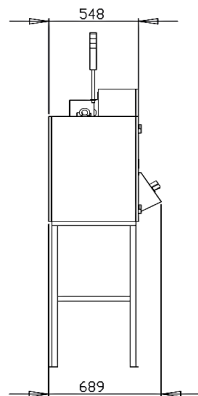
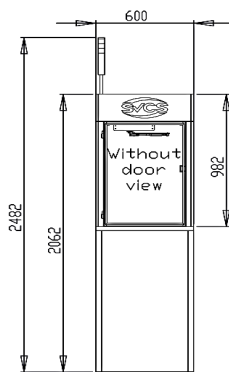


VMB DESCRIPTION

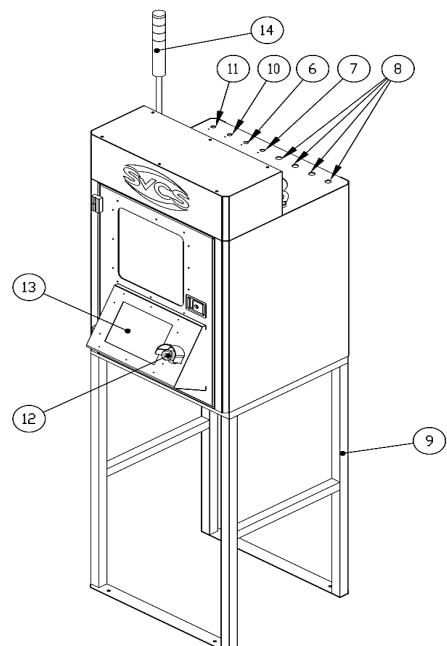


Gas Delivery Systems

4-OUTLET VMB



1. Exhaust, flow 6.m3/min open-flap.
2. Inlet the water for sprinkler, 2 bar pressure, flow 120.l/min, Connection G 3 / 4 ".
3. Inlet dry compress air or nitrogen for pneumatic valves. Pressure from 4.8 to 7.6 Bar. Associated booster clutch 1 / 4 ".
4. Screw M12 on grounded for gas cabinet
5. Power connection 230V \pm 10%, 1 A.
6. Inlet nitrogen for vacuum pump, pressure from 4.8 to 7.6 Bar of 50 \square 60 l/min. Male VCR connection 1 / 4 ".
7. Exhaust of flush and vacuum pump, the amount of 50 \square 60 l/min. Male VCR connection 1 / 4 ".
8. Process gas outlet 1, KOAX 1/2"-1/4"
9. Pedestal
10. N2 process, VCR Male 1/4"
11. Inlet process gas, KOAX 1/2"-1/4"
12. Emergency stop button
13. The touch screen for control system
14. Signal tower for device status.



-Weight 100kg
 -When using VMB is a utility room only from the door. The design of the cabinets allows gas to be built next to each other and the walls of non-combustible materials.

PIPELINE/HOOKUPS INSTALLATION SITES



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PIPELINE/HOOKUPS INSTALLATION SITES



Gas Delivery Systems



