



## Ultra High Purity Gas Delivery Systems

High level of technical design

### INTRO

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 customised 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.

### CONFIGURATION

#### SV DELI

Ultra High Purity (UHP) gas delivery systems include

- Gas Cabinets for 1, 2 or 3 cylinders
- Valve Manifold Boxes (VMBs) for supplying multiple tools
- Bulk Speciality Gas Systems (BSGS)
- Gas Systems for various wafer production equipment
- Customized R&D panels

#### Gas cabinet configuration

- Open, wall mounted systems (for inert gases)
- 1 cylinder cabinet, with purge gas from external source
- 2 cylinder cabinet:
  - 2 process gas cylinders, with purge gas from external source and automatic changeover
  - 1 process gas cylinder, 1 purge gas cylinder
- 3 cylinder cabinet (2 × process + 1 × purge), with automatic changeover

### FEATURES

#### Control system features

- Fully automated 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 automatic changeover
- External digital inputs and outputs
- Multiple-level password protection for various operation modes
- Ethernet interface for LAN connection





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### SPECIFICATIONS

#### Gas panel technical specs

- Orbital welded gas panels, manufactured and assembled in the class 10/100 clean room
- Tubings, 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
- 100 % helium leak test and functional test of all individual components prior to welding and panel assembly
- Helium leak test after welding and panel assembly
- Very low internal volume of the gas panel achieved by using special miniature weld heads
- Compact internal vacuum generator for cycle purging

### OPTIONAL

#### Optional features

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

#### Tool gas systems

Production of OEM or in house designed gas systems for ion implanter, dry etcher, epitaxial reactor, custom unique research apparatus, etc. These systems may comprise newly designed electronic control system of different grade, both to utilize enhanced functionality and to add new features.

