



CRYOGENIC

# Cryogenic Solenoid Valves

GC Valves offers dependable and reliable solenoid valves for handling liquids and gasses at extreme temperatures and pressures. We offer numerous choices from our high-flow cryogenic solenoid valve line, as well as options from our low-flow/energy-efficient line. Our extensive product lineup includes valves designed to withstand  $-320^{\circ}\text{F}$  in LN<sub>2</sub> applications,  $-303^{\circ}\text{F}$  in liquid argon applications,  $-297^{\circ}\text{F}$  in liquid oxygen applications, and  $-75^{\circ}\text{F}$  in LCO<sub>2</sub> applications. We also offer a variety of customization options to meet your exact application.

## Design Features:

- Stainless steel and brass options
- Port sizes ranging from 1/8" to 1/2" NPT
- 10-32 UNF ports available, as well as BSPP and SAE options
- Rulon, PTFE, and other elastomers available
- Cv range of .085 to 1.5
- Pressure ratings up to 2400 PSI
- Ultrasonic cleaning option to remove any residual hydrocarbons
- Wide range of voltages available
- Bottom outlet options available
- PTFE-coated or nickel-plated operator component and body options

## Applications:

- Food Processing
- Scientific Instrumentation
- Environmental Chambers
- Semiconductor Manufacturing
- Laboratory Equipment
- Production and storage of gases
- Fuel and Energy
- Special Effects
- Laser Equipment



# CUSTOM SOLUTIONS



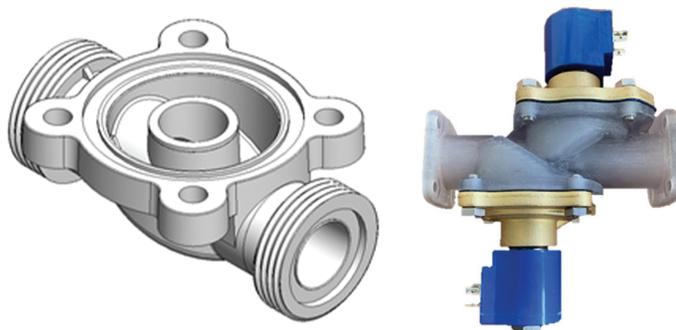
We produce over 1.5 million solenoid valves annually. GC Valves has a history of tailoring solutions for OEMs with demanding applications. Whether you need to design around temperature, pressure, chemical compatibility, flow, or reliability, GC Valves can provide a fluid control solution to meet your needs.

Our world-class engineering team and product portfolio allow for custom solutions in a wide variety of applications. The valves shown here are a small portion of our offering and just a hint of what we can provide with regards to custom valves. Our long history of collaborating with OEMs gives us the experience and comfort level needed to solve difficult design challenges. We pride ourselves on making cost-effective custom solutions, understanding the demands of manufacturers, and providing our products on time, tested, and of the highest quality.

## ENGINEERING CAPABILITIES

### 3D Modeling and 3D Printing - Rapid Prototypes

- STEP files
- Solidworks part
- ACIS
- Pro/E and Creo part
- Parasolid files
- IGES files and more!
- Quick delivery time
- Multiple materials
- Fitment check
- Low-pressure fluid testing
- Tangible design



### Sales Drawings

- Basic views
- Overall dimensions
- Specifications

### Test Reports

- Professional reports
- Certified results
- Data-driven decisions

### Testing Capabilities

- Burst testing
- Noise
- Flow
- Torque
- Water hammer
- Life cycle
- Heat Rise and
- Hi-Pot (High Potential)
- Maximum operating pressure differential
- Minimum opening pressure
- Chemical compatibility
- Internal and External leakage



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