



HIGH PURITY GAS CONTROL SYSTEMS

Manifold Systems Control Panels HP/UHP Regulators Pressure Gauges Valves & Fittings

Technology for a Better Future for Indian Customers

Sole Selling Agents :-



Unique Pipeline Projects Pvt. Ltd.

An ISO 9001:2008 Certified Company

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ISO/TS 29001 Registered

Company Overview

Genstar Technologies is a global leader in Gas Flow Control Systems for the industrial, specialty gas and medical sectors. Gentec provide high quality, value-added products and services that go beyond the industry standards. In India Gentec products are supplied by Unique Pipeline Projects. We have installed gas manifold system on PAN India basis

Quality Assurance

Gentec products are manufactured under stringent quality control. With ISO 9001:2001, ISO13485, and API certified. Our products meet UL, CE, SEMI, and various international standards and certifications.

Clean Room Facility

Our class 10/100/1000 clean rooms are designed for Ultra High Purity (UHP) products. UHP products undergo precision machining, surface finishing, electro-polishing and passivation. All UHP products are cleaned by 18MΩ DI water in a cascade ultrasonic tank. To ensure the highest UHP product quality, they are then vacuum-dried and double-bagged.



Our Team

Our highly educated team of engineers, salespeople, technicians, managers, and customer service personnel are dedicated to providing you with products with the highest quality, reliability and performance. We hold the highest standards to our manufacturing processes; our total process management maximizes our production efficiency while ensuring product quality.

We work closely with all of our customers to design products specific to your needs. This includes developing new products, redesigning existing products, and customizing configuration / packaging. It is our priority to foster a strong relationship with each and every customer.

Manufacturing Capabilities

Gentec manufacturing facility is equipped with CNC machining centers, electropolishing equipment, and precision automatic orbital welding systems, among other features, to ensure the production of the highest quality products.



A TOTAL SOLUTION PROVIDER

Gentec is a total solution provider for your specialty gas control needs. From components to fully integrated systems, we can offer customized solutions to fit your specific needs.



General Purpose Regulators

- Forged body construction
- Large diaphragms for stable delivery pressure
- Economical solution

Series: G152 & HP 152



Valves

- Wide variety of materials and sizes
- Broad range of operating pressures and temperatures-
- Multiple-channel style for the needs of gas systems

Types: Needle Valves, Ball Valves



Ultra High Purity Valves

- Used for HP/UHP applications
- Available in both Manual and Pneumatic types
- Diaphragm valves maintain gas purity and integrity

Types: Pneumatic Valves, Vacuum Generator, Purging



High Purity Regulators

- Barstock body construction
- Used for corrosive & toxic gases
- Wide variety of materials and configurations
- Metal-to-metal seals

Series: R11, R12, R14, R15, R20, R30, R40, R50, R60



Ultra High Purity Regulators

- Used for ultra high purity gas
- VCR connections to prevent leakage
- Wet areas are EP treated to prevent contamination

Series: U series



Cylinder Post Valves and Connections

- Electrically polished Internally
- Multiple connections available
- Meets GB, CGA, DIN, JIS and other international standards



Safety Products

- Provides safety for piping usages
- Ensure positive shut-off of gases

Types: One-Way Valve, Safety Valve, Flashback Arrestors, Overflow Valve



Tube Fittings

- Available in both metric(3-25mm) and US (3-16"-1") systems
- Easy to install and can be reused
- Meet conformance standards



Piping Fittings

- Made with high quality 316L stainless steel
- 1/8" to 1" NPT connections available
- Broad range of operating pressures and temperatures



Gauges

- High accuracy
- Available in different pressure units
- Fabricated with high quality German Bourdon tubes



Industrial Alarms

- Easy to install and use
- Can be used as both local and remote alarms



Ultra High Purity Connections

- Made with high quality 316L stainless steel
- Used for semi-conductor & research applications
- Wide variety of configurations

Type: Orbital welded and face seal connections



Piping Accessories

- Pigtails available in different lengths and connections
- 0.5 ~ 90 µm pore sizes available for one way or 3 way filters

Types: High Pressure Pigtails, Filters, Quick Connectors



Module Panel Solutions

- Used for laboratory, gas cabinets and other specialty gas applications
- Compact and space saving designs
- Customized solutions available to meet your specific needs
- Can be repaired on site



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AUTO CHANGEOVER PANEL



Auto Changeover Panel for Continuous Gas Flow

Main Features -

- Double Stage Regulators made of Stainless Steel 316 Grade Body.
- Maintenance Free Operation.
- SS Filter inbuilt in regulator to capture foreign particles.
- 1/4" NPT connections for Inlet & Outlet.
- Aluminium Powder Coated Handle for Smooth Grip,
- Longer Life & Trouble Free Function.
- Handle Design for Easy Indication

Technical Specifications

- Pressure Range - 0-300 Bar
- Maximum Working Pressure - 230 Bar
- Changeover Pressure Ratings - 0-20 Bar

Main Components Details

- Regulator Body SS 316L electropolished & ultra cleaned.
- SS Diaphragm.
- PCTFE / PEEK Seat for accurate pressure controls
- Leak Integrity 1×10^{-9} mbar L/sec for He
- Low Content Gas Alarm Warning
- SS High Pressure Valve for controlling / On / Off
- LHS & RHS of gas manifold system.
- Model - UPP1000 - 2U-1x1-10.5 - 230 - GT.



NON RETURN VALVE

Main Features -

- ✚ SS 316 Grade Non Return Valve
- ✚ One Piece Construction
- ✚ Maintenance Free Operation
- ✚ In-built Sintered Filter
- ✚ Available for all types of High Purity Gases

Technical Specifications –

- ✚ Hydraulic Test Pressure – 300 Bar
- ✚ Inlet Pressure – Upto 200 Bar
- ✚ Inlet Connection – ½ " BSPF
- ✚ Outlet Connection – ½ " BSPF
- ✚ Cracking Pressure – 3 Psi
- ✚ Leak Tightness – 1×10^{-6} mbar l/ sec
- ✚ Temperature : -45°C to 70°C

Main Components Details –

- ✚ Body – SS 316 Grade



HIGH PRESSURE BALL VALVE

Main Features -

- ✚ SS 316 Grade Shut-Off Valve
- ✚ One Piece Construction
- ✚ Maintenance Free Operation
- ✚ No Contamination of Air into the system while Opening / Closing.
- ✚ Unique Steel Insert embedded in Aluminium Handle for Longer Life & Trouble Free Operation
- ✚ On/Off Design Handle for Easy Indication
- ✚ Available for all types of High Purity Gases

Technical Specifications –

- ✚ Hydraulic Test Pressure – 300 Bar
- ✚ Inlet Pressure – Upto 200 Bar
- ✚ Inlet Connection – ½ " BSPF
- ✚ Outlet Connection – ½ " BSPF
- ✚ Leak Tightness – 1×10^{-6} mbar l/ sec

Main Components Details –

- ✚ Body – SS 316 Grade
- ✚ Ball– SS 316



GAS FILTER

The Stainless Steel High Pressure Gas Filter is designed to prevent rust, dust and foreign particles from entering the gas system.

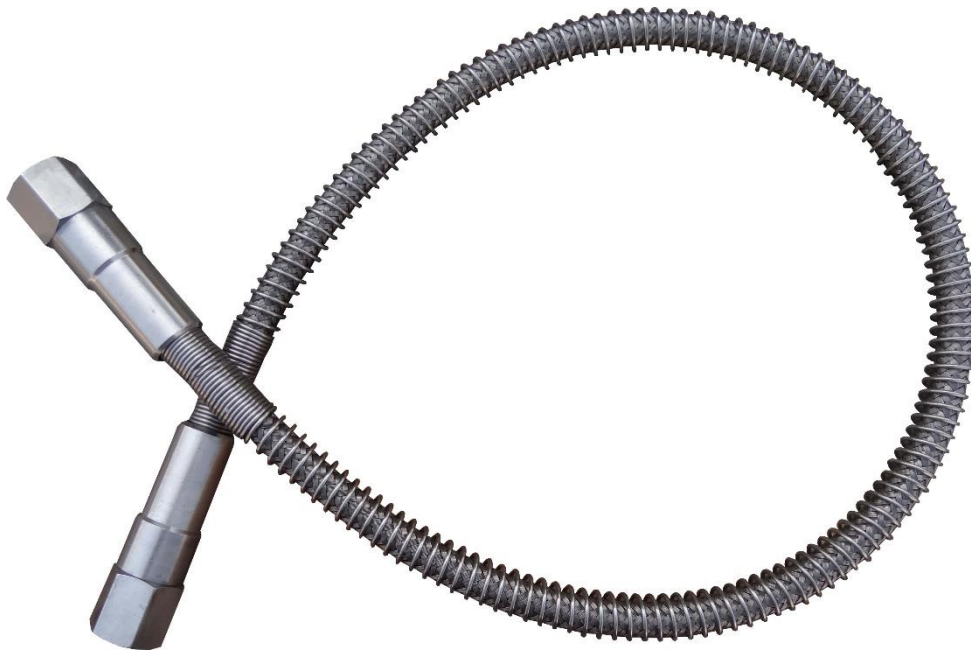
It protects the downstream of gas manifold accessories, i.e, high pressure valves, regulators, gas change-over system, digital sensor etc from getting damaged due to rust and foreign particles.

Main Features -

- ✚ SS 316 Grade Construction
- ✚ Avoid Breakdown
- ✚ Filter can be easily replaced.
- ✚ Resistance to fire, moisture
- ✚ Maintenance Free Operation
- ✚ Available for all types of High Purity Gases

Technical Specifications –

- ✚ Maximum Working Pressure – 240 Bar
- ✚ Filter Material – Metallic, Sintered type
- ✚ Filter –0.5 Micron
- ✚ Operating Temperature Range: -40°C to 75°C
- ✚ Inlet Connection – ½" interface
- ✚ Outlet Connection – ½" interface
- ✚ Hydraulic Test Pressure – 300 Bar
- ✚ Pneumatic Tested Pressure – He gas at 250 Bar
- ✚ Leak Tightness – 1×10^{-6} mbar l/ sec



SS BRAIDED PIGTAIL

Technical Specifications:

- **Inner Tube** : SS 316 Corrugated Tube
- **Outer Tube** : SS 304 Double Wire Braided
- **Inlet Connection** : as per Cylinder Connection
- **Outlet Connection** : ½ BSPF RH
- **Length** : 1000 mm from End Adopter
- **Safety Standard** : PH 7 MEETS SAE 100 R 7
- **Pneumatic Working Pressure** : 200 Bar
- **Hydraulic Test Pressure** : 300 Bar
- **Weight** : 800 gram



GAS DISTRIBUTION PANEL

Technical Specifications:

- Deliver High Purity Gases.
- Made from SS 316 Grade Tapping Point Regulator, Shut-Off Valve, Pressure Gauge, Filter, etc
- Panel in Ready to use condition
- Toggle Valve - On/Off type
- Maximum Inlet Pressure –40 Bar
- Outlet Pressure – Upto 2 Bar
- Inlet & Outlet Connection – as per requirement
- Panel undergo Function and Leak test at $1 \times 10^{(-6)}$ mbar l / sec
- Operating Temperature – -40 deg C to 70 deg C
- Model : UPP/GDP



TAPPING POINT PRESSURE REGULATOR

Tapping Point Regulator reduces line pressure in pipeline to user requirements.

Technical data –

- ✚ Material – SS 316 Grade
- ✚ Diaphragm – SS 316
- ✚ Knob – Aluminium Die Casted Handle
- ✚ Inlet Pressure – 0-60 Bar.
- ✚ Outlet Pressure – 0-10 Bar.
- ✚ Delivery Flow – 0- 50 LPM.
- ✚ Regulator Inlet Connection – as per requirement
- ✚ Regulator Outlet Connection – as per requirement
- ✚ Cv – 0.2
- ✚ Panel can be easily mounted on SS Sheet.



ISOLATION BALL VALVE

Main Features -

- ✚ SS 316 Grade Shut-Off Valve
- ✚ One Piece Construction
- ✚ Maintenance Free Operation
- ✚ No Contamination of Air into the system while Opening / Closing.
- ✚ On/Off Design Handle for Easy Indication
- ✚ Available for all types of High Purity Gases

Technical Specifications –

- ✚ Hydraulic Test Pressure – 200 Bar
- ✚ Inlet Pressure – Upto 100 Bar
- ✚ Inlet Connection – as per requirement
- ✚ Outlet Connection – as per requirement
- ✚ Leak Tightness – 1×10^{-6} mbar l/ sec

Main Components Details –

- ✚ Body – SS 316 Grade
- ✚ Ball– SS 316



ROTAMETER

Main Features -

- ✚ Metering Tube – Acrylic Body
- ✚ Scale – Engraved on Acrylic Body with suitable colour
- ✚ Flow Range – 0-50 LPM
- ✚ Gland Packing – PCTFE
- ✚ Accuracy – 2% - 4%
- ✚ Float – SS 304 / SS 316
- ✚ Float Material – SS 304 / SS 316
- ✚ All Wetted parts – SS 304 / SS 316
- ✚ Measuring Unit – LPM
- ✚ Operating Temperature – room temp.
- ✚ Connection – as per requirement.
- ✚ Nozzle – SS 304 / SS 316
- ✚ O-Rings – Neoprene / Silicon / PTFE



GAS CYLINDER BRACKET

Technical Specifications:

- **Material** : MS Powdered Coated Body
- **Chain** : Galvanised Iron Chain
- **Chain Length** : Approx. 33"
- **Dimensions** : 240 mm x 70 mm
- **Product Code** : UPP977070SS

HIGH PURITY FITTINGS

Stainless Steel Tube Fittings



Male Connectors



Male Elbow



Male Adapters



Female Connectors



Female Elbows



Female Adapters



Union Elbows



Union Tees

Stainless Steel Face Seal Fittings

High quality valves and fittings for High Purity and Ultra-High Purity applications.

FSR fittings are available in 316, 316L, or 316 VAR. Fittings are cleaned, bagged individually in nylon bags, and heat-sealed to meet this stringent demands of the semi-conductor industry

Testing

FSR assemblies have been helium-leak tested to a rate of 1×10^{-9} std cc/sec without leakage.

Ultra High Purity

A variety of FSR face seal Glands and Bodies are available with controlled surface finishes, electropolished, and specially cleaned to meet ultra-high-purity system requirements.

