



SRI VENKATESHWARA ENGINEERING



*One Stop Solution for
Gas Applications*



www.sribalajiind.in



Our Gas Systems are approved by World leaders in Gas Industry such as Linde India, Praxair India, Inox Air Products, Taiyo Nippon and by leading industries in other sectors such as GE Health Care, Applied Material, Bosch, Mylan Laboratories, Titan, Samsung, Volvo, Mahindra Aero Space, Kalyani Rafael and Many more.



An ISO 9001 2015 Certified Company

Our Gas Systems have been approved by World leaders in Gas Industry



Sri Venkateshwara Engineering is an India-based manufacturing Industry. Manufacturer of all types of Gas Handling Equipment, together with Designing, Engineering, Fabrication and Installation. Founded in 1998, we provide custom-engineered Industrial Gas and Cryo equipment to customers throughout India, South East Asia and Gulf Countries.

Being an ISO 9001-2015 certified company, we have a well-defined quality control process that is structured to meet the international benchmarks of quality. Our core competence is "**Customer Satisfaction**" and we are improving upon the quality of our products & services, we endeavor to create value for our customer.

With Good **Infrastructure, Skilled manpower** and by using **Advanced Machinery**, we achieve better quality and accuracy in all our products.

Evolving ourselves with time, we have achieved a special place for ourselves in both domestic & international markets in which we operate our business.

Our Mission:

To become a leading company through Innovation, Technology, Quality, Safety Oriented, being Eco friendly while following highest standards and providing customer satisfaction being our main Motto.



TATA SIVAPRASAD

Chairman & Managing Director

Mr. Tata Sivaprasad, founder of the Company, has three decades of experience in the Gas Industry. He has been associated with the Company since its inception as a founder.

Total Team – 45+

Total Infrastructure Area – 1 Lakh Sq ft

Annual Turnover – Rs.10 Crores



Team SVE is a group of well-trained, seasoned professionals totally dedicated to developing strong partnerships with our clients. Each member of our senior management has an average of 20 years experience in the industry. Added to the depth of experience are young, energetic Engineers, Technicians, Fitters, Welders, Turners, Machinists etc. with 8 to 12 years of experience, in a broad range of categories, as they possess a real love for the Industry.

We use targeted research to execute your idea efficiently and effectively.



Our Clients



AND MANY MORE.....

How sri venkateshwara engineering reached the top most position?

- *Our principles, values and ideologies
- *Efficient engineering team, skilled technicians and labour
- *Feedback from our valuable clients brought us here

We thank each and everyone of them for their support and hardwork



PRODUCTS

- [Gas Manifold](#)
- [Vacuum Jacketed Pipeline / Cryo Pipeline](#)
- [High Pure Gas Handling Equipment / Orbital Welding](#)
- [Quads / Cascades](#)
- [Manifold Cylinder Pallet / Cylinder Pallet](#)
- [Gas Filling Station](#)
- [Hydro Testing Station / Cylinder Testing Station](#)
- [Centralized Gas Piping / Gas Tubing](#)
- [Gas Mixer / Gas Blender](#)
- [Flexible Hoses](#)
- [Copper Pigtails](#)
- [High Pressure Main Valves](#)
- [Pressure Relief valve \(SRV & TRV\)](#)
- [Gas Regulators](#)
- [Brass / SS Gas Fittings](#)
- [Flash Back Arrestor](#)
- [Cryogenic Tank Repair](#)
- [Accessories for Gas Systems](#)
- [AMC for Gas Systems](#)

Gas Manifold



Gas Manifold is a group of Gas Cylinders connected in series and is designed to supply gas through a pipeline to an equipment or building.

We at **Sri Venkateshwara Engineering** Design, Manufacture, Supply and Commission the Gas Manifold systems for Industrial, Medical, Research Laboratory and food grade applications.

Gas Services: Oxygen, Hydrogen, Argon, Nitrogen, Helium, Air, Acetylene, Ammonia, Carbon-di-Oxide, Nitrous Oxide, Mixer Gas, Propane, Methane, Anhydrous HCL, etc.

We have supplied manifolds of different range, varying from 2 cylinders to 300 cylinders for gases, also done skid mounted trailers, quads, etc.

Our Gas Manifolds shall be designed based on our client requirement and considering the possible future expansion. Our manifolds shall be designed based on CCOE/PESO guidelines and will be complying to those standards and factor of safety. We provide manifolds with third party (TUV, SGS or BVQI) certification.

THE BENEFITS OF INSTALLING GAS MANIFOLD SYSTEM OVER SINGLE GAS CYLINDERS ARE:

- ❖ Uninterrupted gas supply
- ❖ Streamlines the handling of gas cylinders
- ❖ Reduces the transport cost
- ❖ Reduces the need for space
- ❖ Lower residual gases in cylinders (saves cost)
- ❖ Easier handling of gas cylinder during an emergency, easy shut off of entire system
- ❖ Centralised gas distribution system, therefore reducing the need for individual pressure regulators or flash back arrestors.
- ❖ Safer working environment and reduces labour efforts.

FEATURES OF SVE GAS MANIFOLD:

- ❖ Robust design, with 1.5 factor of Safety.
- ❖ Manifold with manual or fully/semi auto-changeover systems.
- ❖ Low pressure alarm, warns the user to change cylinders or the manifold rack
- ❖ Safety system with safety relief valve, which pops up in case of regulator failure, causing no damage to the user's equipment
- ❖ Manifolds will be manufactured and cleaned for high pure applications and clean room packed fittings will be used for the same.
- ❖ Manifolds will be tested hydraulically at 1.5 times the working pressure in presence of your representative

Gas Manifold



Vacuum jacketed piping is the simplest and most cost-effective method used to transfer cryogenic liquids from source till user point with minimal heat losses and maximum efficiency.

- ✓ We at SVE, design and manufacture VJP for efficient transfer of liquid nitrogen @ 3 bar or greater, with insulation to withstand a temperature of -196⁰ degrees to +60⁰ degrees Celsius.
- ✓ VJP is designed and manufactured at our works as per ASME B31.3 standards.
- ✓ Our VJP is designed to reduce heat leaks caused by Conduction, Convection and Radiation.
- ✓ We manufacture VJP for Liquefied Nitrogen, Oxygen, Argon, Helium and Natural gas.
- ✓ Heat leak rate of our VJP is 0.49 BTU/hr-ft.

TESTING/QUALITY ASSURANCE

INNER/OUTER PIPELINE JACKETED WELDING	HELIUM MASS SPECTROMETER TESTED @ 1×10^{-8} cc/second Vacuum sealed @ 1×10^{-5} mBar or less.
INNER PIPELINE SYSTEM	Pneumatic pressure testing @ 1.1 times of design pressure
VJ PIPE SPOOL	Vacuum retention test for 48 hours @ 1×10^{-3} mBar
WELDING	TUV certified welders as per ASME Section IX & ANSI B31.3 for TIG welds

VACUUM JACKETED PIPELINE INDUSTRIES:

- ✓ Food processing industry
- ✓ LNG industry
- ✓ Pharmaceutical industry
- ✓ Electronics industry
- ✓ Cryo Freezers industry
- ✓ Cryo welding for automobiles
- ✓ Beverage manufacturers

Our Completed Projects		
MYLAN LABORATORIES, HOSUR	LINDE INDIA DAHEJ, GUJARAT	IOCL, ASSAM
PIRAMAL PHARMA, HYDERABAD	BOSCH BIDADI, BANGALORE	SF DYES, BANGALORE
GE BE PVT LIMITED	BOSCH, NASIK	ELLA FOODS, MALUR
APPLIED MATERIALS	INOX AIR PRODUCTS, SALEM	IISC, BANGALORE
ISRO, BANGALORE	DRDO, HYDERABAD	LINDE TALOJA, MUMBAI
VRV ASIA PACIFIC	MEL SYSTEMS, CHENNAI	PLASMA RESEARCH, GUJARAT

As every client has his own requirement, we select and design a suitable variant for every different use. Our products are tailor made, cost effective design for maximum efficiency. We have our own team of TUV certified TIG welders who do the field work for VJ piping.

Vacuum Jacketed Pipeline



The quality of High Purity and Ultra High Purity Gases used in your applications are crucial and critical in your process, the ability to maintain the gas quality is dependent on the materials and the equipment used to construct the Gas Handling system.

SVE specializes in the Design, Manufacture and Installation of High Pure Gas Handling Systems and its related components for High Pure and Ultra High Pure grade gases.

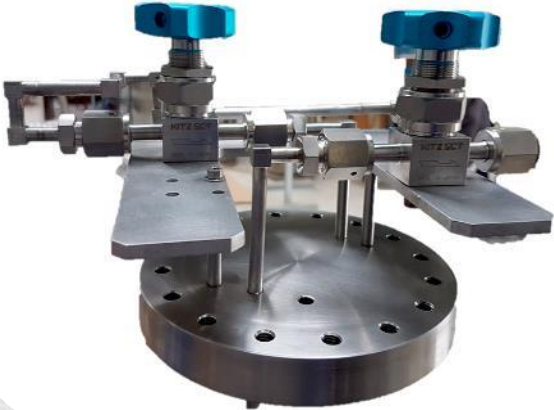
- We use tubes and fittings varying from grade SS316L, Nickel Alloys to Hastelloy Alloys, also Titanium Tubes for manufacturing of these systems.
- In High Pure Pressure Reducing Systems, we use High Pure Grade Regulators and Fittings of the similar grade.
- Tube welding is done by orbital welding using Argon gas of 5.8N grade as backing gas.
- Fabrication using materials with finishing varying from annealed, oxygen cleaned to 15ra electro polished, clean room packed fittings.
- Manpower trained and certified by Swagelok.
- Orbital welder certified by TUV.
- All our equipment certified for clean room jobs.
- We provide weld logs for orbital weld joint to clients.
- System will be helium leak tested at 1×10^{-9} cc/second.
- Radiography testing will be done.
- Pressure holding test will be done at 1.1 times of working pressure with helium gas.
- Pipeline will be tested for traces of O_2 and H_2O .

We have performed the following high pure gas systems:

- Satellite Propulsion System for ISRO, for Helium service at 275bar, using 6mm Titanium tubes, complete module performed in 100000 class clean room in LPSC, Bangalore, all the joints were tested for radiography and Helium leak detection.
- We have Designed and Fabricated Nickel Alloy reactors for SABIC, Bangalore, for chemical analysis performed in the laboratories. Withstands up to a temperature of 600⁰ Celsius and tested under helium for a leak rate of 1×10^{-9} cc/second.

And many more.....

High Pure Gas Handling Equipment



Quads / Cascades

Quads/cascades are a bunch of cylinders, all interconnected, filled or discharged together and loaded or unloaded as a bunch. Quads/cascades are used where high volume of gas is required to be fed at a regular flow rate and pressure without an interruption. In this kind of applications or industries the usage of conventional gas cylinders one at a time, becomes highly undesirable because of time wasted in cylinder changeover, cylinder handling, gas wastage etc. Also, when higher quantity of gas is to be fed as per process requirement, use of single cylinder becomes non-feasible due to its low gas storage volume constraint. For these kinds of applications, gas cylinder quads or cascade or pallets or banks are used.

- ✓ Can be designed for storage of 2 cylinders to 300 cylinders.
- ✓ Solid cage structure made of alloy steel to withstand the external impacts, also comes with provision for forklift handling and hook for handling using a crane or hydra.
- ✓ Reduces manual handling of cylinders.
- ✓ To avoid corrosion, quads/cascades are galvanized, therefore, these can be used in offshore applications as well as in corrosive environments.
- ✓ Safer handling of cylinders, as the movement of cylinders is arrested in all the axes of movement
- ✓ System comes with pressure gauge, filling and discharge valves.
- ✓ Quad assembly can be fabricated for skid mounted trailers.
- ✓ Gas services offered: Oxygen, Inert Gases, Nitrogen, Argon CO₂ Mixer Gases, Acetylene, Hydrogen Gas, etc.
- ✓ Two types of quads: Vertical Cylinder Quad and Horizontal Cylinder Quad.
- ✓ Vertical Cylinder Quad: where the cylinders are placed vertically, with manifold placed above the cylinder. Feasible for up to 16 cylinder storage.
- ✓ Horizontal Cylinder Quad: in this type the cylinders are placed horizontally, can be used to store over 20 cylinders in a single pack.

We also design and fabricate customised quads/cascades based on your requirement.

- We fabricate and supply 300+ Manifold Cylinder Pallets and 450+ Cylinder Pallets to M/s. Linde India and M/s. Linde Bangladesh, every financial year.
- We fabricate and supply 150+ Manifold Cylinder Pallets, DA clusters, 48 cylinder Hydrogen Quads to M/s. Praxair India, every financial year.
- We designed, fabricated and supplied 3 skid mounted trailer for storage, transportation & usage of over 200 hydrogen cylinders.

few of our other customers are: M/s. Sicgil Sol India limited, M/s. INOX Air Products, M/s. Jhajjar Power Station Limited, Indian Institute of Sciences, ISRO and many more....

Quads / Cascades



Manifold Cylinder Pallet

Manifold Cylinder Pallet is a bunch of cylinders, all interconnected, filled or discharged together and loaded or unloaded as a bunch. Manifold Cylinder Pallet are used where high volume of gas is required to be fed at a regular flow rate and pressure without an interruption. In this kind of applications or industries the usage of conventional gas cylinders one at a time, becomes highly undesirable because of time wasted in cylinder changeover, cylinder handling, gas wastage etc. Also, as gas is needed to be fed as per process requirement, use of single cylinder becomes non-feasible due to its low gas storage volume constraint. For these kinds of applications, Manifold Cylinder Pallets are used.

- Can be designed for storage of 2 cylinders to 16 cylinders.
- Solid cage structure made of alloy steel to withstand the external impacts, also comes with provision for forklift handling and hook for handling using a crane or hydra.
- Reduces manual handling of cylinders.
- To avoid corrosion, MCPs are galvanised, therefore, these can be used in offshore applications as well as in corrosive environments.
- Safer handling of cylinders, as the movement of cylinders is arrested in all the axes of movement
- System comes with pressure gauge, filling and discharge valves.
- Gas services offered: oxygen, inert gases, nitrogen, argon co2 mixer gases, acetylene, hydrogen gas, etc.
- Manifold Cylinder Pallet, where cylinders are placed vertically, with manifold placed above the cylinder. Feasible for up to 16 cylinder Pallet.

We also design and fabricate customised MCPs based on your requirement.

- We fabricate and supply 300+ manifold cylinder pallets and 450+ cylinder pallets to M/s. Linde India and M/s. Linde Bangladesh, every financial year.
- We fabricate and supply 150+ Manifold Cylinder Pallets, DA clusters, to M/s. Praxair India, every financial year.
- We supply Manifold Cylinder Pallets to World Leaders in the Gas Sector on a regular basis.

Few of our other customers are: M/s. SicgilSol India Limited, M/s. INOX Air Products, M/s. Jhajjar Power Station Limited, Indian Institute of Sciences, ISRO and many more....

Manifold Cylinder Pallet



Gas Filling Station

SVE offers a wide range of Gas Cylinder Filling Station Equipment including Filling Manifolds, Control Panels, Mixer Panels, Hoses, etc. We also take up turn-key projects of Gas Cylinder Filling Stations and supply the entire range of equipment required to run a Gas Filling Station including Cylinder Pallets, Manifold Cylinder Pallets, Pressure Gauges, Hose Fittings, Safety Relief Valves, Manifold Valves and other products.

- ✓ Design pressure: 20-300 bar.
- ✓ Service: Oxygen, Inert Gases, Hydrogen, Carbon di Oxide, Nitrogen, LASER Gas, Mixture Gases, Nitrous Oxide.
- ✓ Gas Cylinder Filling station will be made as per CCOE GCR rules 2016 (Gas Cylinder Regulations)
- ✓ Two types of filling station: Vertical Filling Station (advanced) and Conventional type Filling Station
- ✓ Closed loop filling system ensuring High Purity of Gas.
- ✓ Simplified procedure, two well trained operators can run the entire operation without any complications.
- ✓ Robust and streamline mechanism, therefore doesn't require a huge set up or big financial investment.
- ✓ Soft seating valves are used, which is easy to operate even under high pressure, also providing a high flow.
- ✓ Control panels come with 6" dial pressure gauges for precision control.
- ✓ Check Valves, Safety Relief Valves provided in the system, ensuring safety of the plant, cylinders and operators.
- ✓ SS braided Hoses with stay wire/tether cable to ensure safety of operator.
- ✓ Able to manufacture Multi Gas Mixture on pressure basis, making use of same control panel up to 7 gases or more.
- ✓ All the spares required to run a Gas Cylinder Filling Station are available with us in stock.

Our recent Gas Filling Station projects:

Helious Speciality Gases, Gujarat	Helium, 200 bar filling Nitrogen, 300 bar filling
Inox air products, Chennai	Argon, nitrogen 200 bar filling Laser gas, hydrogen mixture gas filling
Siga Gases, Bangalore	Argon, nitrogen, oxygen 200 bar filling
Truair Gases, Peenya Bangalore	Argon, nitrogen, oxygen 200 bar filling Hydrogen mixture gas filling

We have designed and established over 50 Gas Filling Stations all across India for our various clients like M/s. Praxair India Ltd, M/s. Linde India Ltd, M/s. Kholapur Oxygen, M/s. Assam Air Products, M/s. Sicgil Sol and many more...

WE ALSO MANUFACTURE AND SUPPLY AUTOMATED CYLINDER INVERTERS FOR DRAINING WATER.

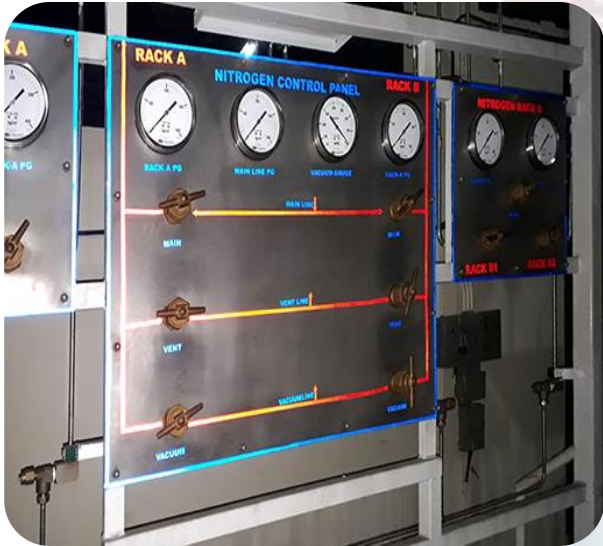
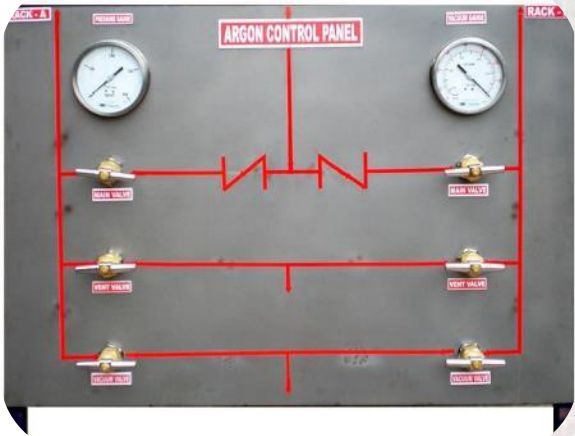
Gas Filling Station



Gas Filling Station



Gas Filling Control Panel



Hydrostatic Test Station is a way in which pressure vessels such as Gas Cylinders, Pipeline, Gas Handling Systems can be tested for strength and leaks. Vessel is filled with a fluid, mostly water and pressurised using a hydraulic pump to the specified test pressure.

We offer two types of test stations:

- Water Jacketed type cylinder testing
- Conventional (Direct Expansion) type cylinder testing

Water Jacketed Cylinder Testing:

- Cylinder is filled with water enclosed in a test jacket filled with water.
- Cylinder is then pressurised and letting to expand.
- Total expansion is determined by the measuring the quantity of water displaced when under pressure.
- Permanent expansion is determined by measuring the quantity of water to be replaced after release of pressure.

Conventional type Cylinder Testing:

- Volumetric expansion will be determined in this method.
- Cylinder is filled with a known quantity of water, then a known quantity of water is pressurised until the test pressure.
- Permanent volumetric expansion will be determined when cylinder under pressure.
- Total volumetric expansion will be determined after the pressure is released.

Both the systems are approved by CCOE/PESO for Hydro Testing of Seamless Cylinders.

- Robust pumps, Heater and Blowers are used.
- A fully equipped Hydraulic Test Pump, with Safety Relief Valve, Pressure Gauge, Non-Return Valve, Suction Filters and Air Trap.
- A rugged Cylinder Vice for Valving and de-valving of cylinder valve.
- Test lamp for internal inspection.
- A Digital Weighing Scale, Ultrasonic Thickness Gauge for enhanced results.
- An experienced engineer will be deputed to train, guide and commission the system at your works.

Hydro testing station consists of:

- Stretch board with an SS scale, 2 nos of Pressure Gauges, Glass and Copper tubes, Pressurising line and Valve manifold.
- Hydro Test Pump, for Test Pressure upto 350 bar or above.
- Cylinder Vice, with Valving and de-valving handle.
- Digital Weighing Scale.
- Ultrasonic Thickness Gauge.
- Heater Blower and Dryer assembly.
- Test lamp.
- Cylinder Inverter.

Hydro Testing Station / Cylinder Testing Station



We at Sri Venkateshwara Engineering, offer services to Industries & Hospitals for centralized gas pipeline, for the transfer of gases/liquids from source to end point with required regulating systems, pipeline accessories, etc. SVE has a well-trained and skilled set of service technicians to perform the Gas Piping System.

We have an experience of over 20 years in this industry and we Design, Fabricate, Install & commission over 150 such system every year. With our wide knowledge and strong background in the field of Gases, we design systems which will be maintenance free, in case of any such emergency we will be able to support you with our skilled service technician.

All our service technicians have an experience of over 8 years in this industry and are certified by TUV for TIG welding, OTIG welding and Brazing operations as per ASME standards. We can provide spares or equipment in case of emergency as we maintain stocks of almost all the products related to gas system from reputed makes.

Safety being our top priority, all our service technicians are trained regarding all the Safety Procedures and Life Saving rules. We are proud to say that we have not had any major incident while performing job work on-site.

Specialized Gas Piping Systems Designed by us:

- High Pressure Hydrogen Gas line for M/s. Saint Gobain, Chennai.
- Gas piping with Boosting system for Injection Moulding at M/s. INDO MIM TEC, Bangalore.
- Gas Tubing with Twin booster, purifying and metering system for Analytical lab in JNCASR.
- Corrosive Gas lines for Anhydrous HCl and NH₃ at M/s. BEL, Bangalore.
- 20000 PSI pressure line for Flammable gases at M/s. SAF, Chennai and M/s. SFL, Pondicherry.
- Many more such projects with World's Gas Leaders M/s. Praxair, M/s. Linde, etc.

All our systems will be tailor made as per client's requirement and to suit their satisfaction.

Gas Blender / Gas Mixer

Gas blender/gas mixers allows its users to generate a controlled and uniform mixture of gases coming from separate pure gas sources, creating blends in a variety of accuracies and capacities.

- We at SVE, design and manufacture gas blenders for uniform mixing of two or more gases at a pressure of 4 bar or greater.
- We supply Gas Mixers with an accuracy of $\pm 1\%$.
- Our gas blenders come with a surge tank capacity of 60 liters or greater with a flow rate of 40NM³/h and above.
- Surge tanks are manufactured as per ASME standard.
- Our gas blender systems are tested at 1.1 times the design pressure under pneumatic pressure.
- Provision for a Gas Analyzer with Regulator and Isolation valve.
- Gas blenders with custom features as per client's requirement.
- Cost saving and avoids changing of cylinders frequently.
- Gas blenders designed to mix flammable and non-flammable gases, non-corrosive gases and non-oxidising gases.

Few of our clients for Gas Benders

1.	INOX AIR PRODUCTS PVT LTD
2.	L & T KOMATSU LIMITED
3.	MATHESON K AIR
4.	SRI VENKATESHWARA OXYGEN
5.	ELLENBARRIE PVT LTD
6.	FERRUM EXTREME ENGINEERING
7.	PHOENIX CONSTRUCTION

AND MANY MORE.....

OUR PRODUCTS HAVE BEEN USED IN THE FOLLOWING SECTORS:

- Automobile sector
- Heavy machinery manufacturing industries
- Aerospace Industries and many more....

These kinds of requirements vary from different clients, our systems will be designed uniquely as per your requirement, which are cost effective, high accuracy and low maintenance costs. We have engineers with 30+ years of experience in Gas Systems who will be supervising with installation and analysing of Mixture Gas outlet from the Gas Blender, post installation at your works.

Gas Blender / Gas Mixer



Flexible Hoses

Hoses are the flexible connections that are used for fluid transfer usually used to connect cylinders to manifold, regulator to equipment and serves many other purposes in the Gas Sector. Hoses are usually preferred as they are flexible, light weighted and are easy to operate.

We at Sri Venkateshwara Engineering manufacture Hoses that are designed to withstand for high pressure as well as vacuum pressure. Hoses are designed with a burst pressure of 4 times than the working pressure of the product. All the Hoses manufactured at SVE will be tested under Hydraulic Pressure as well as Pneumatic Pressure.

Dimension	Inner diameter	Wall Thickness	Internal Construction	External Construction	Working Pressure	Burst Pressure	Minimum Bend Radius
Inch	mm	mm			Bar	Bar	mm
1/4	6.35	0.7	PTFE	SS single Braiding	175	700	45
1/4	6.35	0.7	PTFE	SS double Braiding	250	1000	45
1/4	6.35	1.0	SS304/SS321	SS double Braiding	330	1320	45
3/8	9.5	0.7	PTFE	SS Single Braiding	125	500	55
1/2	12.7	0.7	PTFE	SS Single Braiding	115	460	70
1/2	12.7	0.8	SS304/SS321	SS Single Braiding	145	580	70
3/4	19	0.8	PTFE	SS Single Braiding	90	360	190
1	25.4	0.8	PTFE	SS Single Braiding	65	260	270

Hoses are available in varying lengths, available for gases based on the compatibility of Material and Gas with required tether cable and end fittings.

Flexible Hoses

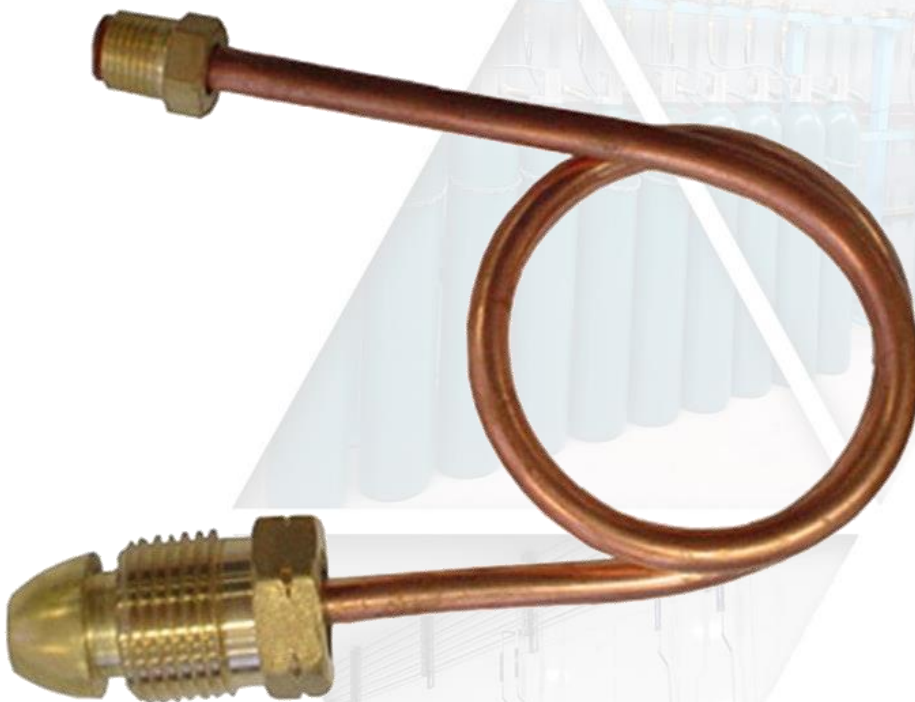


Pigtails

Pigtails are the connections used for fluid transfer, usually made of seamless tubes, bent or coiled as per desired. These connections are fabricated using different material of construction, based on the compatibility of gas and material.

Pigtails are designed with a burst pressure of 5 times the working pressure.

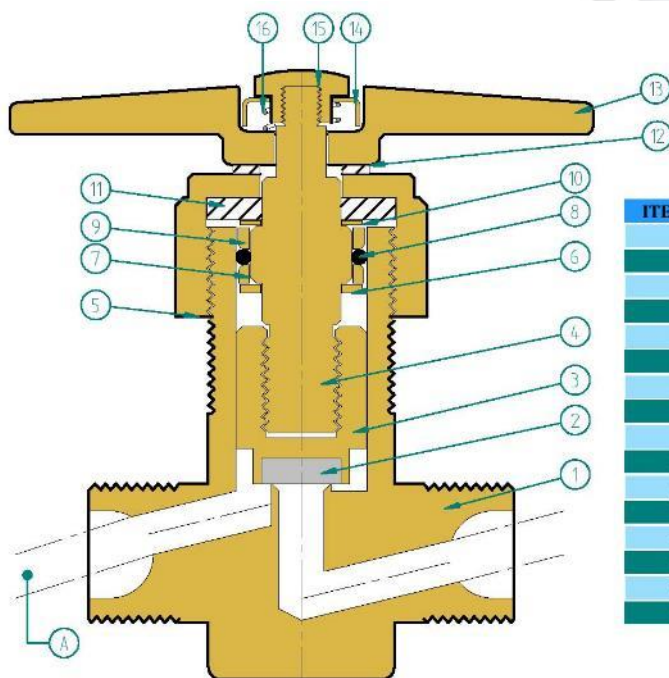
- Pigtail MOC: Copper, SS316L or SS304.
- End Connections: CGA connections, IS3224 connections or other Gas connectors.
- End connections MOC: Brass or SS316L.
- Cleaning: Oxygen Cleaned.
- Testing: 100% pressure and vacuum tested.



High Pressure Main Valve

High Pressure Main Valves are used in cylinder filling stations and panels, cascade systems and other high-pressure manifold or gas distribution system.

- Robust forged body construction.
- Higher flow rate compared to other gas valves.
- Soft seating with good elasticity, good life for the seating.
- Long brass handle, low operating torque even under pressure.
- Ease of operation and installation.
- Design Pressure: 300 bar.
- All valves cleaned and degreased for oxygen service.
- Suitable for Oxygen, Inert, Hydrogen, Nitrogen service, Carbon di Oxide.
- Resistance to ignition in Oxygen service.
- Available in two sizes: 1" size and 3/4" size.
- O ring sealing for leak proof packing.
- valve system tested under 300 bar of helium gas pressure.
- Manifold valve with swivel fittings to match SS tube, SS pipes or copper tubes



ITEM NO.	DESCRIPTION	MOC
1	BODY	FORGED BRASS
2	SEATING	PCTFE/LEAD
3	BONNET	FORGED BRASS
4	SPINDLE	BRASS
5	GLAND NUT	BRASS
6	BOTTOM WASHER	BRASS
7	O-RING BOTTOM GUIDE	BRASS
8	STEM SEAL O-RING	VITON-90
9	O-RING TOP GUIDE	BRASS
10	TOP WASHER	BRASS
11	GLAND PACKING	PTFE
12	HANDLE WASHER	NYLON
13	HANDLE	FORGED BRASS
14	HUB CAP	BRASS
15	LOCK NUT	BRASS
16	SPRING	SS316

VALVE TYPE	SEATING MOC	ORIFICE (A) (mm)
1" MV-K	KEL-F/PCTFE	12
1" MV-L	LEAD	12
3/4" MV-K	KEL-F/PCTFE	9
3/4" MV-L	LEAD	9

High Pressure Main Valve



We at Sri Venkateshwara Engineering, maintain a stock of PESO approved Safety Relief Valves, for Pressure Vessels, Gas Filling Manifolds, Cryogenic Services, Low pressure Lines, etc. Safety Relief Valves designed to relieve high volume of Gas/Liquid, with high CV, wide outlet port compared to the inlet port.

We maintain stock of Bronze body and Brass body Spring Loaded Safety relief valve suitable for Oxygen, Nitrogen, Argon, Helium, Hydrogen, ACM, CO₂, etc, with Set Pressure varying from 2 bar to 230 bar pressure. Inlet port sizes varying from ½" to 1" and Outlet port being comparably larger than the Inlet Port.

We at SVE, also manufacture our own make of Brass Body Safety Relief Valve, with SS304 Stress relieved Spring with varying spring constant as per set pressure, Safety Relief Valve with satisfactory repeatability, even under high set pressures, working satisfactorily in various Gas Filling Stations, Pressure Reducing Systems, Pressure Vessels, Gas Filling Manifolds and Cryogenic lines.

We also manufacture MS body Safety Relief valve for Low Pressure lines of Ammonia Service, with MS internals and MS casting body with MS inlet and outlet ports, Outlet routed into a safe zone, diluted into water.

SVE make Safety Valve Features:

- Service: Nitrogen, Oxygen, Argon, Hydrogen, LPG, Helium, Liquid Nitrogen, CO₂, Ammonia, etc.
- Inlet Pressure: 2 -250 Bar
- Inlet Size: ½", ¾" with comparably larger outlet Dia.
- Seating Material: PCTFE (better Elasticity, better repeatability)
- Brass Body Safety Valve tested under Helium Gas.
- MOC: Brass body, MS (ammonia)
- Outsourced SRV stocked at SVE: M/s. Mack, Australia, M/s. Herose, Germany.

We also reset the Safety Relief Valves, perform repeatability test for the Safety Relief Valves, change the damaged Seating portion, Pressure resetting and test the same under Helium Mixture gas.

We at Sri Venkateshwara Engineering, maintain a stock of Gas Regulators certified and approved by World's Leading Gas Industries, regulators for various Gas Services, inlet & outlet Pressures, sizes, flow ranges and MOC.

Regulators stocked at Sri Venkateshwara Engineering:

- Service: Nitrogen, Oxygen, Argon, Hydrogen, Acetylene, LPG, Helium, Liquid Nitrogen, CO₂, etc.
- Inlet Pressure: 0-300 Bar
- Flow rates: 0-400 cubic metre/hour
- MOC: SS316, Bronze, Brass, Aluminium, etc.
- Make: Cash Acme, Harris, Messer, GCE, Parker, Vanaz, etc.

Regulators



Fittings & Valves

In the field of gases, arresting of leaks is important in the projects of this sector, that can be achieved only by using good quality products and fittings. We at SVE have an experience of 20 years in machining of fittings for gas services. To add to the experience, we have CNC turning centres for better accuracy and quality of the product. We use forged SS304, forged SS316 or BS249 grade extruded brass rods in the machining of fittings. All our raw material undergo a thorough process of tests including the NDT, pressure test and chemical analysis.

We can make fittings suitable for Valves, Fittings, Flanges, Cylinder Valves, Regulators, etc. We make thread converters, adaptors for CGA to BSP, BSP to NPT. We also make pipe unions which can be used in between two rigid pipes or tubes. 100% of our fittings will be made from forged or extruded rods, we do not use any casting rods for machining these fittings.

We at SVE, also manufacture Needle Valves, Non-Return Valves, Thermal Relief Valves, Regulators for gas and liquid gas services. All our products are tested in house and the same can be witnessed. Some of our product list is as follows:

- Thread adaptors/convertors
- Hose to cylinder valve connectors
- Needle Valves
- Thermal Relief Valves
- Non-return Valves
- Pressure Regulators (SVE-OX-14)
- Unions for pipes / tubes
- Regulator Connectors
- Hose to machine connectors
- All the other threading/brazing/welding type connectors.

Fittings & Valves



Flash Back Arrestor

A flashback arrestor or flash arrestor is a gas safety device most commonly used in oxy-fuel welding and cutting to stop the flame or reverse flow of gas back up into the equipment or supply line. It protects the user and equipment from damage or explosions. These devices are mainly used in industrial processes where oxy-fuel gas mixtures are handled and used. Flashback arrestors as safety products are essential to secure the workplaces and working environment. In former times wet flashback arrestors were also used. Today the industry standard is to use dry flashback arrestors with at least two safety elements.

We, at Sri Venkateshwara Engineering maintain a stock of BAM approved Flame Arrestors/ Flashback arrestor.

1. Flashback arrestors from **MESSER, GERMANY**
2. Flashback arrestors from **GCE, GERMANY**
3. Flashback arrestors from **ESAB**



We at SVE offer a complete Repair, Evacuation and Refurbishment of Cryogenic Vessels, Dura Cylinder, Vacuum Insulated Transport Tanks, Vacuum Insulated Storage Tanks and Vacuum Jacketed Pipelines. We at SVE Service, Evacuate, Vacuum test and Pressure test any model/make Vacuum containers with the help of our high-quality Workmanship, Vacuum Pumps and Engineering Team.

Services offered by SVE for Cryogenic Vessel Repair are as follows:

- Evacuation of annular space.
- Reconditioning/Replacement of Cryogenic Valves, Relief Valves and pipeline.
- Replacement of O-Rings and Seals.
- Thawing of Pipelines, Vessels
- Removal of moisture and impurities from Cryogenic Vessel.
- Vacuum Holding test for Outer Vessel.
- Pressure Test of Inner Vessel.
- Leak Check for Cryogenic Tank pipeline and Vaporiser Coil.
- Set Pressure for TRV and SRV.

Advantages of sending your Cryogenic Vessel to SVE for Refurbishment:

- 100000 Sq Ft area to store Cryogenic tanks during Refurbishment.
- 12 x 12 feet closed area for Sand blasting and Painting.
- Higher Range Vacuum Pumps to attain a Vacuum Pressure of 1×10^{-6} mBar.
- 300 cubic meter per hour heater and blower assembly for thawing and de-moisturising of Cryogenic Vessels.
- Engineering team with 20+ years of experience in the field of Cryogenic Vessels and Vacuum Systems.
- Readily available Fabrication team and Machining team in house, in case of any fabrication or machining requirements.
- Hydra facility available in case of Loading/Unloading of tanks, also for Mounting of VITT on Chassis.



Our Accessory Equipment for Gas Systems includes Regulators, Safety Valves, Pressure Gauges, Pressure Switches, Solenoid Valves, Cylinder Valves and Flame Arrestors. As most of these products are imported, we at SVE maintain stocks of these accessory equipment's. As most of the OEM's believe in the statement "Time is Money", we at SVE, to support them, we maintain stocks of the following products for a smooth running of OEM's gas lines:

1. Cryogenic regulators from **CASH ACME, USA.**
2. Cryogenic globe valves from **MACK / HEROSE, GERMANY.**
3. Pressure relief valves from **HEROSE, GERMANY.**
4. High flow pressure regulators from **PARKER, USA / VANAZ, PUNE.**
5. Moderate flow pressure regulators from **MESSER, GERMANY / HARRIS, USA.**
6. Flame arrestors from **MESSER, GERMANY.**
7. Solenoid valves from **IMI NORGEN, USA.**
8. Pressure gauges from **WIKA / BAUMER.**
9. Cylinder valves from **TEKNO VALVES.**
10. Pressure switches from **DANFOSS, USA.**

Also several other products....

We at SVE, are supporting the OEM's from the last 20 years of different sector varying from automotive sector, steel industry, gas manufacturing units, aerospace industry, petro chemical industry, etc. In case of failure in a gas system, we need not wait for a product to be imported or supplied from the manufacturer, we at SVE stock the equipment's and its necessary spares.

We maintain stock of standard range of products, specifically for Nitrogen, Argon, Oxygen, LPG, Acetylene, Hydrogen, Helium Gas services.



We at Sri Venkateshwara Engineering, take up Annual Maintenance Contract for Industrial Gas Systems, Medical Gas Systems, Liquid Gas Systems, Vacuum Insulated Cryogenic Vessels, Pressure Reducing Station, Vacuum Insulated Cryogenic Transport Tanks, Toxic Gas Pipeline and Systems. We have a 40+ skilled manpower with 7 membered Engineering team, experienced with Gas and Liquid Gas Systems for a period of over 20+ years.

We take up AMC for the Following Projects:

- ✓ **Toxic or Corrosive Gas systems (Manifold, Tubing/Piping, PRS, Instrumentation lines, etc)**
We perform Leak checks, Purging the line, Replace the Seals, Pressure test for the Corrosive gas Pipeline and Pressure reducing Systems, minor Repairs, Modifications or upgradation of the system.
- ✓ **Liquid Gas Systems (Cryo Tank, Cryo Pipeline, Cryo PRS, etc) :** Pressure test of Cryogenic Pipeline, Pressure Reducing system, Vacuum check and Evacuation if required, replacement of vacuum seals, Valve Seating replacement, Calibration of Pressure Gauges, Top up of PUF insulation.
- ✓ **Cryogenic Containers (Dura Cylinders, Dewars, Porta Cryo, etc) :** Vacuum check of the Annular space, Evacuation if required, Pressure test of inner vessel, replacement of Seals for Vacuum port, seating for valves, Thawing of vessel pipes and removal of Impurities from inner vessel, performance check of TRV and SRV.
- ✓ **Cryogenic Tank (VITT, VIST) :** Vacuum check of the annular Space, Evacuation if required, Pressure test of inner vessel, replacement of vacuum seals, valve seating replacement, TRV and SRV Performance check, Painting of outer tank, removal of impurities and thawing of pipelines.
- ✓ **Industrial Gas Systems (Gas Manifolds, PRS, Quads, MCPs, Skid Mounted Trailers, etc):** Pressure test the entire gas system, including the high-pressure lines, pressure Reducing systems, and Low- pressure lines, calibration of Pressure gauges, Temperature Gauges and Vacuum Gauges, Performance check of the regulators, NRV, SRV, Heaters and other Accessory equipment.
- ✓ **Medical Gas Systems (Tanks, Manifolds, PRS, Vaporising units, Pipeline, etc):** Pressure test the entire gas system, including the high-pressure lines, pressure Reducing systems, and Low- pressure lines, Performance check of the regulators, NRV, SRV, Heaters and other Accessory equipment, cleaning of the lines as per standard degreasing methods.

Advantages of choosing Sri Venkateshwara Engineering for AMC of your Gas/Liquid Gas System:

- ✓ All Gas systems servicing, starting from Storage to Pressure Reduction and till end usage, therefore one vendor can assist for the entire organization Gas System needs.
- ✓ In house Machining and Fabrication unit also the huge storage space, which reduces the cost of the fittings and lead time for spares.
- ✓ Advanced machinery for evacuation and for the machining of fittings leads to fool proof system.
- ✓ Engineering Team with 20+ years of Experience in the field of Gas Systems.
- ✓ Robust Hydro Test pumps, Gas Booster, Heater Blowers, Vacuum Pumps available in house.
- ✓ 100000 Square Feet of Area at our works for storage of Transport tankers or Skid Mounted Trailers.



VACUUM INSULATED CRYOBATH

Vacuum insulated cryobath, used for cryo welding / Shrink fitting of rivets in automotive and heavy machinery manufacturing sectors

Auto changeover Manifold systems

For research and Laboratory uses, manifolds with auto changeover systems are designed



Cryogrinding using Liquid Nitrogen

To avoid the loss of flavour while grinding of spices, liquid nitrogen is used as a coolant to maintain temperature of the grinding process

MBC Skid

Cryo manifold with vaporization and regulating system, for mini bulk Cylinders/Cryo cylinders



Thank you



Address:

SRI VENTAKATESHWARA ENGINEERING

Plot No. 20/2, Near KIADB Industrial Area,
Chintamani Road, Mallimakanapura, Hosakote Taluk,
Bangalore-562 122

E: info@sribalajiind.in

W: www.sribalajiind.in

M: +91 98451 96806

M: +91 85530 89891

M: +91 94807 56806