

**USE
RELIABLE
INNOVATIVE
COST EFFICIENT**

**GAS EQUIPMENTS
AND
GAS SYSTEMS**

Gastech

CORPORATION

Air & Gas Technology People

ISO 9001-2015 QMS certified Company

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Gastech CORPORATION

Gastech CORPORATION is involved in manufacturing of equipment related to the production / generation of various industrial gases, gas systems and providing cost effective solutions.

Since 1989, **Gastech CORPORATION** has been involved with design, consultation and manufacturing of various industrial and medical gases systems, using Pressure Swing Adsorption (PSA) as an air separation process.

Gastech CORPORATION has placed in operation several systems. The main characterization that can be made is **Gastech CORPORATION** has a capability of custom design and made any system that customer needs to suit specific requirements.

Gastech CORPORATION has to its credit a team of dedicated, experienced, qualified Engineers & technicians to carry out specialized assignments. The company, located in PUNE industrial area and is, equipped with Pipe Cutting & bending equipment's, TIG Welding & Brazing out fits, Assembly & Pressure Testing facilities.

Gastech CORPORATION has several technical achievements to its credit, including the first Indigenous Gas Mixer, the first Pre-heater less CO2 regulation, first indigenous NO2 Scrubber, first indigenous Medical Oxygen Concentrator & only manufacturer of energy less LPG Vaporizers.

For the customers Gastech CORPORATION now represents a reliable source of cost effective & innovative Gas Equipment's & systems

For more details regarding our products please contact us on,

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Gastech CORPORATION PRODUCT RANGE

- ❖ PSA Industrial Oxygen Generator.
- ❖ PSA Medical Oxygen Concentrator.
- ❖ PSA Nitrogen Generator
- ❖ Gas Mixing Systems for welding & heat treatment.
- ❖ Gas Mixing Systems for Ethylene Oxide Sterilization.
- ❖ Gas Cylinder manifold.
- ❖ Gas flow control system
- ❖ Energy less LPG Vaporizer
- ❖ Energy efficient CO₂ & LPG regulation equipment.
- ❖ Metal Pickling Equipment with air pollution control.
- ❖ Dry Compressed Air systems.
- ❖ Vacuum Systems.
- ❖ Compressed Air Dryer.
- ❖ Gas & Liquid Dryers.
- ❖ Gas Purification & Dehydration systems.
- ❖ Turnkey engineering, & piping assignments.
- ❖ PLC based Master Alarm Panel for Industrial & Medical Gases.
- ❖ PLC based Area Alarm Panel for Industrial & Medical Gases.
- ❖ PLC based PSA Plant Controllers.
- ❖ PLC based process control systems for Industrial applications.
- ❖ PLC based Air Compressor & Vacuum Pump Control Panels.
- ❖ PLC based Cylinder Manifold Controllers.

Gastech Corporation has several technical achievements to its credit, including only manufacturer of our PATENTED ENERGY LESS LPG VAPORIZERS, the first Indigenous Gas Mixer, the first Pre-heater less CO₂ regulation, first indigenous NO₂ Scrubber & first indigenous Medical Oxygen Concentrator.

For the customers Gastech now represents a reliable source of cost effective & innovative Gas Equipment's & systems.

DON'T

BUY



MAKE IT YOURSELF

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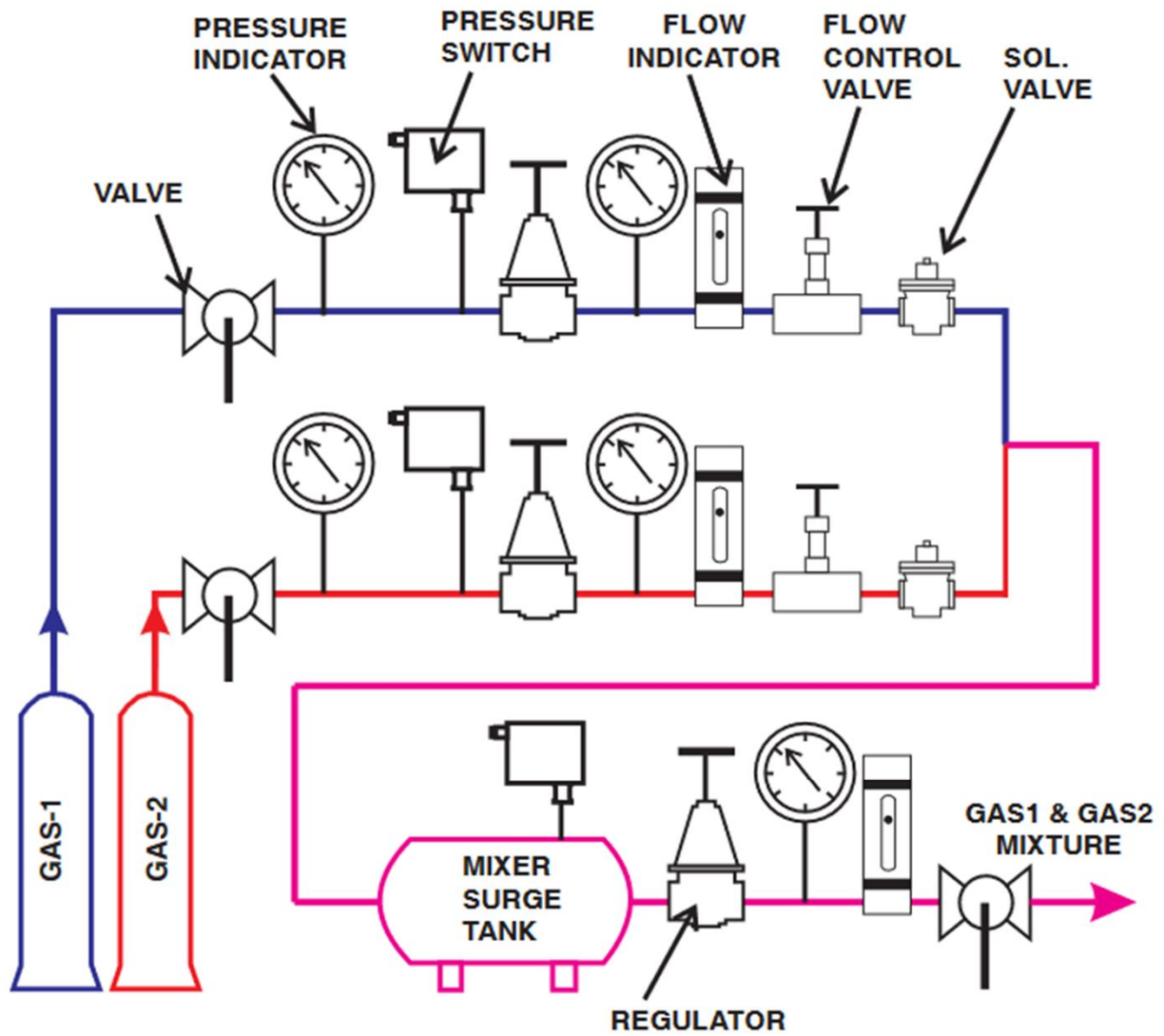
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Gastech GAS MIXER PRINCIPLE OF OPERATION



TYPICAL GAS MIXER LAYOUT

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Gastech GAS MIXER PRINCIPLE OF OPERATION

- ❖ Gastech Gas Mixer is based on the principle that a constant upstream pressure and a constant pressure drop across a fixed flow resistance results in a constant flow rate.
- ❖ The two adjustable orifices in the needle valves provided in the system, with their respective built-in flow resistances assure constant flow of individual gases in the desired proportion independent of the downstream pressure.
- ❖ The upstream pressures are controlled by the respective pressure regulators. The individual flows are engineered such that when mixed together, a mixture of the desired proportion is produced.
- ❖ The mixing takes place at low enough pressures and in such a manner that a completely homogeneous mixture is formed without leaving any pockets of individual pure gases.
- ❖ In Gastech Gas Mixer practically unlimited turndown is achieved as far as the outlet flow rate is concerned for the entire system through a pressure switch, solenoid valve.
- ❖ The frequency of the solenoid valve remaining open is increased as the process demand for the gas mixture increases.
- ❖ THE QUALITY OF THE GAS MIXTURE REMAINS UNAFFECTED AT VARYING OUTLET MIXTURE FLOW RATES.

SALIENT FEATURES OF Gastech MIXER

- ❖ Low pressure operation at all times, & hence safe.
- ❖ Orifice based simple technology.
- ❖ Calibrated flow meters provided for visual verification & setting.
- ❖ Surge tank provided for pressure regulation & homogeneity.
- ❖ Solenoid valves, pressure switches, pneumatic valves combination based ON / OFF principle.
- ❖ Minimum maintenance.
- ❖ Proven technology.
- ❖ Less Power requirement.

Gastech MIXER MODELS (Examples)

MODEL	MAJOR GAS	MINOR GAS
C - AC	ARGON	CARBON DIOXIDE
C - AN	ARGON	NITROGEN
C - AH	ARGON	HYDROGEN
C - AO	ARGON	OXYGEN
C - ACO	ARGON	CO2 / O2
C - HeN	NITROGEN	HELIUM
C - NH	NITROGEN	HYDROGEN
C - NC	NITROGEN	CARBON DIOXIDE
C - HeH	HELIUM	HYDROGEN

ADVANTAGES OF Gastech MIXER

- ❖ Compared to Pre- mixed gas cylinder the Gas mixture produce from Gastech mixer is economical.
- ❖ Cost saving.
- ❖ Pure gases already available in the plants, no new procurement.
- ❖ No stratification of components.
- ❖ Homogenous mixture.
- ❖ Ratios can be easily changed & verified.
- ❖ No dependence on single mixture supplier.
- ❖ Economical equipment, low capital cost.