GAS LAB ASIA

PRACTICAL INNOVATION FOR INDUSTRIAL GASES

PRACTICAL INNOVATION FOR INDUSTRIAL GASES



CO_2 pH CONTROL FOR WATER TREATMENT

NITROUS OXIDE SYSTEMS

CARBON CAPTURE & SEQUESTRATION

BIOMETHANE & BIOGAS

MERCHANT PLANTS FOR CO_2 PRODUCTION

CO_2 N_2O BIOGAS

CO_2

N_2O

BIOGAS

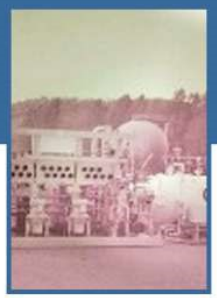
WE ARE

Our journey started manufacturing CO_2 to prepare carbonated water for British Army in 1923. Since then, with decades of experience and 500+ successful installations in twenty countries, GAS LAB is well established as an international expert in all aspects of carbon-dioxide (CO_2), nitrous-oxide (N_2O) and biogas; Research, applications, plants, storage and accessories. Possessing comprehensive in-house capability in design and fabrication of pressure vessels and backed by our long-standing heritage of in-house and collaborative research, GAS LAB regularly delivers cutting-edge advanced application.

Delivered more than

500

systems worldwide ranging in size and complexity






LEADERS IN GAS INNOVATION

- IN-HOUSE RESEARCH FACILITY
- TECHNICAL ALLIANCES WITH WORLD-RENOWNED TECHNOLOGY
- MULTILAYED SAFETY ONION CONTROL® PHILOSOPHY
- HUNDREDS OF PROCESS PLANT OPTIMIZATION AND HAPPY CUSTOMERS
- CUSTOMERS CENTERED QUALIFIED AND EXPERIENCED PROFESSIONALS

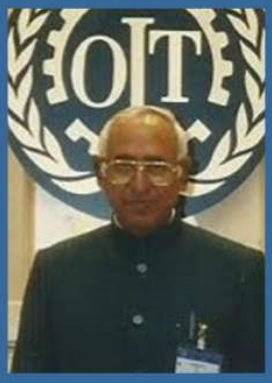
UNPARALLELED PRACTICALITY

- ROBUST STAINLESS STEEL DESIGN
- DIVERSIFIED GLOBAL EXPERIENCE FOR YOUR PURSUAL
- LOW OPERATING COST
- OPTIMIZED TOTAL COST OF OWNERSHIP (TCO) AND OPERATION
- FULLY SKID MOUNTED SYSTEM FOR EASY COMMISSIONING

GAS LAB

OUR TEAM

Under leadership of highly expertised and experienced professionals, GAS LAB has marked its presence across the globe on the field of industrial gases. Our leaders exemplify the quality that makes our team self driven, experts in their field and service committed.



S.S. Aggarwal, Ph.D
Chairman



Jayanti Goela
CEO



Rajiv Goela
Director Finance



S.K. Chatterjee
Director Technology



Keshav Goela
Director Projects



Miguel P Smurawski
Director Int.Sales



Ashok Kumar
Director

BUILT BETTER. BUILT FOR YOU.

- IN-HOUSE MANUFACTURING FACILITY
- CUSTOMIZATION COMES STANDARD
- CONFORM TO STRINGENT INTERNATIONAL DESIGN AND QUALITY STANDARDS
- U STAMP AND CE MARKING AVAILABLE
- THIRD PARTY INSPECTION BY WORLD RENOWNED AGENCIES

SERVICE. WHEN YOU NEED IT

- EXPERIENCE CUSTOMIZED AFTER SALES SERVICE OPTIONS
- WEB MONITORING CAPABILITY FOR REMOTE VIEW AND DIAGNOSIS
- USER FRIENDLY, PLUG'N PLAY PRACTRACK PLATFORM
- SERVICE AGENTS AVAILABLE AROUND THE WORLD REDUCE LEAD TIMES

Recognition



ECGC Indian Exporters Excellence Award



EEPC India



Global Green Award

CO_2

N_2O

BIOGAS

MERCHANT PLANTS *for* CO_2 GENERATION

CO_2 production plants from oil and natural gas. Research and experience based design for superior purity at optimum cost.

INDUSTRIES and APPLICATIONS



Distilleries



Breweries



Beverages



Industrial

CO_2 production plants Using diesel or natural gas starting from 50Kg/H capacity.

Highly optimized two pass reboiler design

Material of construction- all Stainless Steel

Design as per ASME standards





Amine System



Turnkey CO_2 production plants from oil, natural gas and biogas

MERCHANT PLANTS *for* CO_2 RECOVERY

CO_2

N_2O

BIOGAS

CO_2 recovery plants from low, medium and high purity sources such as flue gas from boiler chimnies, power plants, refineries, chemical reactions and mines,

INDUSTRIES and APPLICATIONS



Boiler Chimnies



Power Plants



Refineries



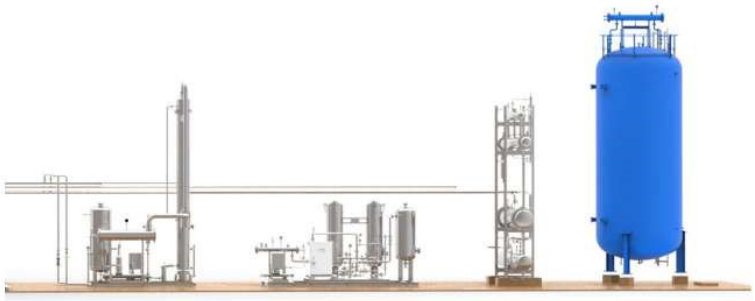
Mines

Our advance technology avoids unsustainable chemicals such as $KMnO_4$

Custom high reliability dry-running oil-free horizontal compressor

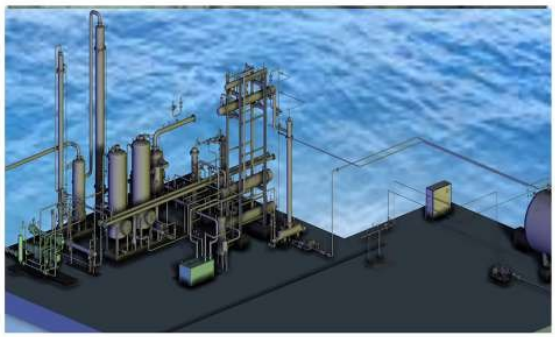
99.99% ISBT Food grade purification achieved

Modular PLC based fully automatic centralized control





CO_2 recovery plants for breweries distilleries and soft drink bottling



Recovery from fermentation

CO_2

N_2O

BIOGAS

pH CONTROL *for* WATER TREATMENT

End-to-end CO_2 solutions for pH control in water treatment. From on-site generation or CO_2 capture to carbonic acid injection from storage, GAS LAB PREMIUM EFFICIENCY CIS® range of technologies deliver superior acidification of water applicable in many processes such as desalination pretreatment & post-treatment, recarbonation, flocculation and disinfection etc.

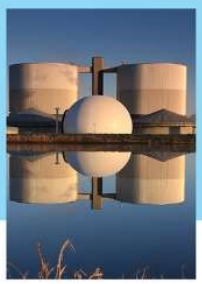
INDUSTRIES and APPLICATIONS



Desalination



Water Treatment Plants



Industrial Waste Water Treatment Units



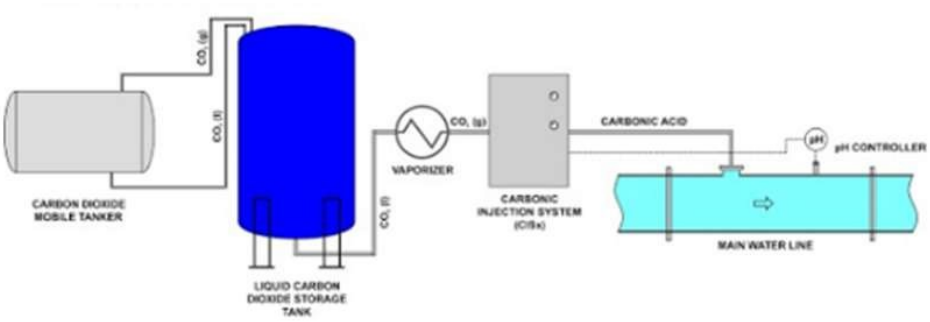
Agriculture

The revolutionary CIS® features premium solubility efficiency

95% dissolution rate guaranteed*

Tightest Langelier saturation index (LSI) control

Best in class. Easy to operate. Inexpensive to own.





Storage and injection system



CO_2 generation and capture system

CARBON CAPTURE & SEQUESTRATION

CO_2

N_2O

BIOGAS

GAS LAB Carbon capture and sequestration technology are extending the environmental viability of traditional energy sources such as coal, oil and natural gas. Innovative sequestration products improve feasibility of low cost carbon capture.

INDUSTRIES and APPLICATIONS



Sequestration Of CO_2 Into Valuable Chemicals



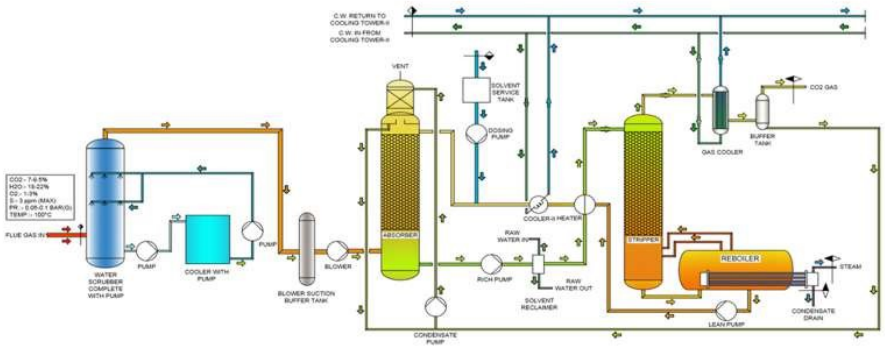
Enhanced CO_2 Recovery



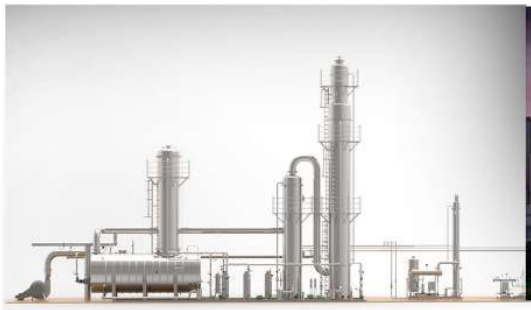
Industrial Uses



Sustainable desalination



- Low operating and capital cost
- Advanced solvents and blends
- Low Pressure Operation
- Significantly reduced solvent degradation
- Innovative sequestration products



GAS LAB carbon capture system



CO_2 capture and sequestration from smoke stack from oil & gas , power and steel sectors.

CO_2

N_2O

BIOGAS

LARGE SCALE BIOGAS PLANT

Customized Biogas methane technology for various waste sources like crop residue, animal waste, municipal solid waste and waste water. Innovative schemes for mixing, heating and pumping power some of the most efficient biogas production plants for both mesophilic and thermophilic processes.

INDUSTRIES and APPLICATIONS





INDUSTRIAL

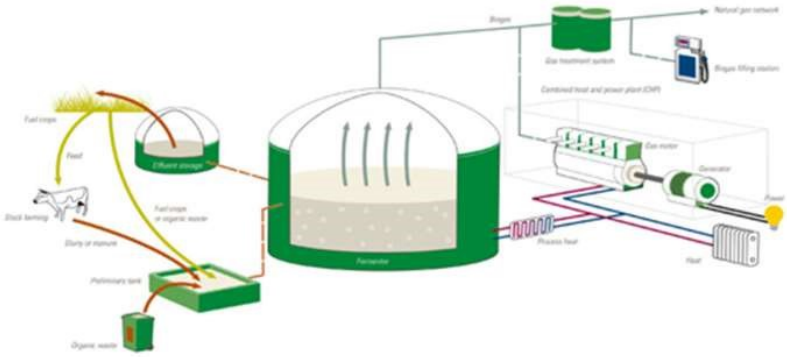




AGRICULTURE

BARC approved NISARGUNA design

Advanced Bio-fertilizer enhancement process produce highly producive natural fertilizer



Environmentally friendly

Suitable for handling all types of waste

Biogas can be used for fuel purposes





Complete suit of Biogas upgradation system, adsorption, advanced amine absorption, water adsorption from different biogas streams composition and sizes.

BIOMETHANE AND CO_2 RECOVERY PLANT

CO_2
N_2O
BIOGAS

GAS LAB offers complete suite of biogas upgradation system: pressure swing absorption advanced amine absorption, water absorption from different biogas streams composition and size. High purity biomethane (upto 99%) for higher CHP engine efficiency or vehicular fuel applications. High purity CO_2 can be recovered from biogas. CO_2 can be used either for direct sale or can be sequestered to produce commercially viable products.

ADVANCED AGRICULTURAL with BIO-CO_2



CO_2 dosing based growing solutions for speciality crops



CO_2 controlled systems for greenhouses and hydroponic farming



CO_2 based chemical free poultry disinfection system



Advanced soil pH correction system for soil conditioning



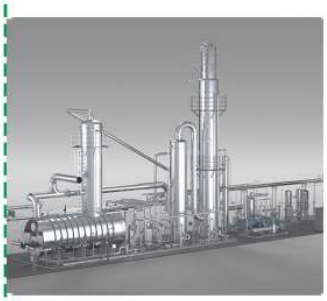
WATER SCRUBBING



PRESSURE SWING ADSORPTION



CRYOGENIC SEPARATION



AMINE ABSORPTION

CO_2

N_2O

BIOGAS

STORAGE AND DISTRIBUTION SYSTEMS

Gas Lab Storage tanks designed & manufactured, standard as per ASME Sec VIII, in a U Stamp compliant facility. Storage units are available in horizontal, vertical and frame mounted configurations with both Polyurethane Foam and Vacuum Perlite insulation. Storage units can be chosen from our wide standard range of 5 – 120 MT or customized exactly to the requirement of the client.

GAS LAB Storage units come complete with interconnecting piping, valves, safety devices, pressure and temperature gauges, and all other required accessories for the reliable, safe and efficient operation of the storage unit.

ISO tanks for storage and transportation of liquid CO2, N2, O2 and Argon

ASME, 'U' stamp, CE marking availablen

Third party inspection by Llyod's, TUV and BV

Ambient Vaporizers, Pressure Regulators, & Flow Control valve available for installation with storage system

- Load cells come as standard for accurate weight measurement and provide precise measurement of CO2 bought or consumed.
- Multi-layered safeties for protection from both high and low pressure
- ASME design, SIL certified SMART transmitters, redundant PLC's, remote monitoring, and ISO 12944 C5M options ensure GAS LAB storage system readiness for the most demanding industrial environments like refineries and power plants.



CO2 Storage



Transportation tanker



Storage tanks with ambient vaporizer and Carbonic Injection System



Ambient Vaporizers

NITROUS OXIDE SYSTEM

CO_2

N_2O

BIOGAS

GAS LAB Nitrous oxide (N_2O) plants deliver high purity N_2O solution for food, medical and Semiconductor industries.Low pressure systems incorporated with the latest technology and stringent safety standards are the hallmarks of GAS LAB N_2O systems



Dual Limb Drying System

Modular Design

Factory Tested Skids Assembly

Low Pressure Technology

PLC Panel with Touch Screen RM



Factory tested N_2O systems are skid mounted ensuring maximum customer satisfaction

Reactor and other critical parts are made in special grades of stainless steel



Dual limb drying system with high efficiency desiccants ensure moisture control critical to the system

Capacities range from 25 kg/hr to 500 kg/hr

SPARES, ACCESSORIES AND SERVICES

CO_2

N_2O

BIOGAS

Experience world class after sales service with GAS LAB qualified professionals and various service options such as remote diagnosis via internet telephone and technician visit.
Lead-time for service professionals significantly reduced due to our worldwide availability, insight into plant performance and economics with Practrack platform. Pre-assembled and pre-wired process skid reduce plant installation and service time

INDUSTRIES and APPLICATIONS



Complete solutions for storage and transportation of Carbon Dioxide



Atmospheric vaporizers



Flue Gas Analyzer



Dry Ice Press



Dry Ice Make



CO_2 Purity Tester

CO_2

N_2O

BIOGAS

RESEARCH AND DEVELOPMENT

In-house R&D facility to study gas processes, in collaboration with IIT Delhi, BARC and leading International research institutes to research and develop existing and new processes. GAS LAB has show cased its first CO_2 sequestration technology in 2014. (Patent applied for).

Department of
Science & Technology
Government of India





Waste-To-Energy
Bringing inherently Safe Technologies to Waste-to Energy





Agricultural Technology
Revolutionary Agriculture with environment friendly technology

Water Desalination
GAS LAB premium efficiency carbonic injection technology





Carbon Capture & Sequestration
Supporting Environment against climatic change

MANUFACTURING FACILITY

In house "U" stamped fabrication facility for pressure vessels, heat exchangers, distillation and packed columns manufacture complying with ASME, EN & PED Standards. Each manufactured equipment is approved by top international third-party inspection agencies like TUV, BV and Lloyd's Register.








CO_2

N_2O

BIOGAS

U-STAMP

R-STAMP

CE MARKING

In-house CCOE & PESO approved manufacturing capability for pressure vessels heat exchangers, boilers and columns ensure tighter quality control, high availability reduced delivery time and costs.

CERTIFICATIONS & STANDARDS

FEATURED CLIENTS

SS GAS LAB Asia

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