



Regional Leader in
Gas Solution



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Company Introduction

Your Number 1 LPG Provider in Oman

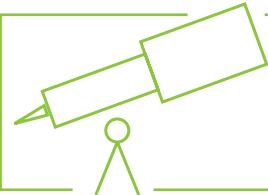
Muscat Gases Company SAOG was established in the year 1983 in Muscat, Sultanate of Oman, to trade in Industrial gases and LPG. In the year 1985, the first production facility was established at the Industrial Estate in Rusayl, Sultanate of Oman. MGC's commitment in consistently meeting customer requirements and emphasis on responsiveness to customers needs have been instrumental in aiding the growth achieved since its inception. MGC became a Publicly listed Company in 1989. Over the years, the organization has expanded its scale of operations with capacity expansion at LPG Bottling Plants, Bulk LPG and Industrial Gases manufacturing and trading. Muscat gases has restructured its business lines in 2017 and created a subsidiary for its Industrial Gases division and sold 70% of its shares in the subsidiary to a foreign company that is a world leader in Industrial Gases business. In 2020, MGC sold its share in the subsidiary, and is back into the Industrial Gases business.



Why Muscat Gas

- ✓ Largest Fleet in Oman (76 Vehicles)
- ✓ 5 Gas Storage Stations and Handling Yard with Capacity (More Than 1,000 MT)
- ✓ Highest LPG Quota in Oman for Domestic & Export LPG (More Than 14,000 MT Monthly)
- ✓ Full Range of Solutions Under One Umbrella: Storage, Cylinder Filling, Distribution, Mobile Application, Installation, AutoGas, Vending Machines, Maintenance, Utility Billing & Management
- ✓ Civil Defense Approved Engineering Team
- ✓ Certified NFPA 58-54 team

Vision & Mission



Vision Statement

To Be the integrated gas solution company of choice in the Region.



Mission Statement

Striving to be at the forefront of safety, innovation and sustainability in gas solutions while investing in the development of our people and exceeding stakeholder's expectation.

Values



Safety

We are guided by a desire to ensure safe and healthy working environment for our employees to deliver best in class services to customers.



Reliability

Our customers can rely on us to receive quality services consistently, wherever and whenever they interact with us.



Trustability

With a customer-centric DNA, we aim to create a trusted advisor relationship between our employees and customers.



Convenience

Our organization aims to deliver a seamless best-in-class experience to our customers across all touch points.



Proactivity

We understand our customers expectations and we constantly seek ways to ensure they are exceeded, in order to become their dependable business partners.

●●● PRODUCTS & SERVICES

Empty Cylinders

LPG when you need it

Domestic LPG gas bottles or cylinders from Muscat Gas are the perfect option for off-grid homes where either space is at a premium, or usage isn't high enough to warrant an LPG tank.

Whether you need to power your central heating, gas-powered stoves, living flame fires, portable heaters or BBQs – our versatile range of domestic LPG gas bottles and cylinders have you covered.

MGC Cylinders come in 3 sizes:

11 KG Composite Cylinder

MGC is the sole supplier of Fourtis Composite Cylinder in the GCC.

Fourtis is a lightweight (5 kg without valve), durable, composite cylinder that is wrapped in a customizable, easy-to-clean polymeric jacket with an ergonomic handle. It is demountable, making reassembling easy, and has a lower maintenance cost than steel cylinders. It is equipped with Vertical Valve from Cavagna.



22 KG Steel Cylinders

The 22 KG steel cylinder is used for house cooking and is usually equipped with Horizontal Valve.



44 KG Steel Cylinders

The 44 KG steel cylinder is used for commercial and restaurant cooking and is usually equipped with Horizontal Valve.



Valves

Horizontal Valve

The Horizontal Valve is currently connected to the 22 KG and 44 KG cylinders. Part of the national phase, our plan of Horizontal valves, all cylinder valves will be changed from Horizontal to Vertical.

TECHNICAL SPECIFICATION:

| 1zz | Type | Manual Opening/Closing without safety relief. | | | | |
|-----|--|--|---------------------|------|-----------|------------------|
| 2 | Material | Brass (Ms 58) | | | | |
| 3 | Mechanical Properties | Tensile Strength = 43kg - f/mm ² , Elongation = 25 8min., Hardness=13 6VPN (min.) | | | | |
| 4 | Legend of valve Assemblies & Chemical Composition | Part | Material | Qty. | Part | Material |
| | | Hand Wheel | Brass (CU5BZN4OPB2) | 1 | O-Ring | Nitrile Rubber |
| | | Body | Brass (CU5BZN4OPB2) | 1 | Seat Disc | Polymide (Nylon) |
| | | Pin | Brass (CU5BZN39PB3) | 2 | or Teflon | 1 |
| 5 | Value Body Mfg. Process | By hot forging / Die-Casting | | | | |
| 6 | Flow rate @20 °C & 5bar Cylinder Pressure | Minimum 1.5kg/Hr. | | | | |
| 7 | Design Standard | As per prevalent international Standards/Specifications. | | | | |
| 8 | Marking | Name & Trade Market of Manufacturer, Country of Origin, Date of Mfg. | | | | |
| 9 | Inlet & Outlet Threads | Details mention in the Drawing. | | | | |



Vertical Valve

The Vertical Valve is currently connected to the 11 KG cylinders.

The Vertical Valve is considered safer, easier for usage and more operational efficient. This valve is produced in Italy by Cavagna of which MGC is their sole distributor in Oman.



| DESCRIPTION | Compact valve D. 22 | | | | | |
|-------------|---------------------|----------------|--------------|---------|-------------|-----------|
| | GEN. TOLL. L- | GEN. FILL. R - | ANG. TOLL.L- | DRAFT - | SCALE 1:1 | SHEET 1/1 |
| RESPONS. | DRAWN | ISSUE | | | MATERIAL | |
| DATE | 01-03-18 | 01-03-18 | | | / | |
| SIGNATURE | Zanni | Treccani | | | | |
| ACTIVITY | NUMBER | 24144 | PROJECT | 24144 | DRAW NUMBER | |
| | SIGN. | Treccani | REFERENCE | - | 6682900226 | |
| | INDEX | A5 | WEIGHT Kg. | 0.350 | | |

Regulators

Quick On Regulator 50 mbar

Average pressure single stage regulators with clip-on inlet connections for direct connection of the cylinder quick-on valves.
Customizable colors, safety devices on demand.
Available with fixed pressure.



Quick on Regulator variable (22-90 mbar)

High pressure single stage regulators with clip-on inlet connections for direct connection of the cylinder quick-on valves.
Customizable colors, safety devices on demand.
Available with variable pressure.



Tanks

Above the Ground Tanks

- ✓ 500 Liters Vertical Tank
- ✓ 1,000 Liters Horizontal Tank
- ✓ 2,100 Liters Horizontal Tanks
- ✓ 3,600 Liters Horizontal Tanks

Any Higher Capacity Tank is Available on Request.



Below The Ground Tanks

- ✓ 1,000 Liters Horizontal Tank
- ✓ 1,750 Liters Horizontal Tank
- ✓ 5,000 Liters Horizontal Tank

Any Higher Capacity Tank is Available on Request

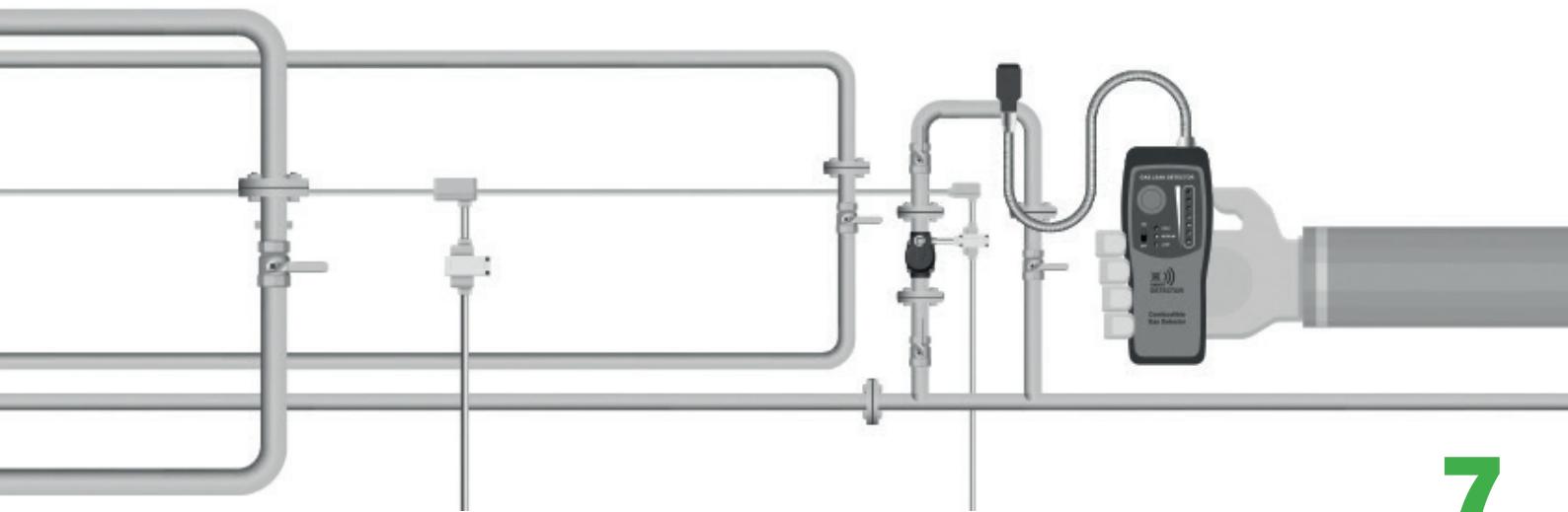


Maintenance

MGC provide maintenance services for gas systems. A dedicated team of engineers and technicians are available to do preventive, as well as routine maintenance for these systems.

Our 24 hours emergency response team is always ready to deal with all gas concerns and situations. Customers are just a call away for gas help through our call center number 80088008.

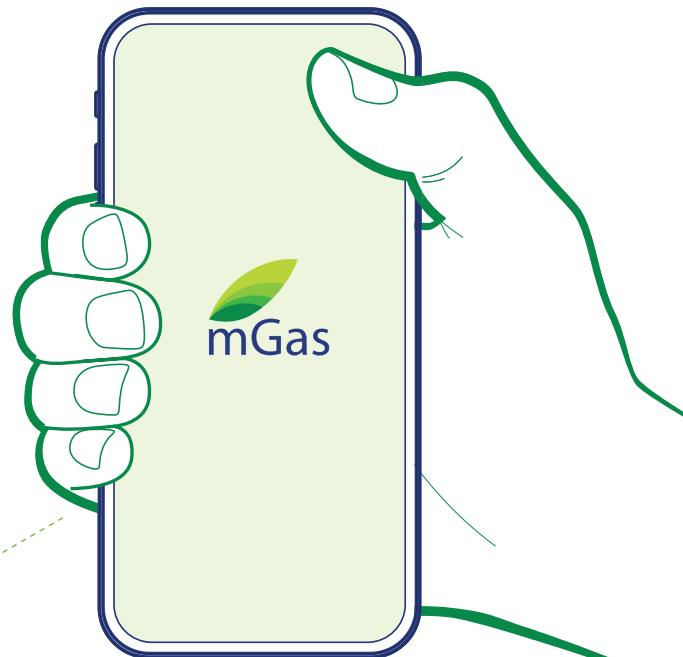
We ensure safe and trouble-free operation through a preventive maintenance plan and regular visual inspections.



Mobile Application

Muscat Gas is offering Cylinder Distribution Services via Mobile Application by matching the “end users” with the Orange truck drivers to Replace their empty Cylinders or sell them new cylinders.

This special service offers the cylinders for a cheap price, while offering best in class service and fast delivery all over the Sultanate of Oman. The mobile application is available on App Store and Google Play.



The image shows three screenshots of the mGas mobile application interface:

- Screenshot 1 (Left):** Shows the product catalog with three cylinder options: 11Kg Composite Cylinder (1.400 OMR), 22Kg Steel Cylinder (2.800 OMR), and 44Kg Steel Cylinder (5.600 OMR). Buttons for "New Order" and "Exchange Cylinder" are at the top.
- Screenshot 2 (Middle):** Shows the "Check Out" screen. It lists the delivery location as "Beirut, Beirut - Jean Dark Street - Ghandour Building - 3rd Floor", the delivery schedule as "11/08/2020 Between 10:00 and 12:00 In Front of the Building", and the payment method as "Cash On Delivery". A summary table shows 11Kg Composite Cylinder (Unit Price 1.400 OMR, Total Price 2.800 OMR) and a total of 2.800 OMR.
- Screenshot 3 (Right):** Shows the "Order Placed" screen with Order ID 681. It tracks the order status through four stages: "Submitted" (11-08-2020 08:54 AM), "Confirmed", "On The Way", and "Delivered". Buttons for "Continue Shopping" and "Contact Us" are at the bottom.

Vending Machines

Muscat Gas is the sole distributor of 11 KG Cylinders Vending Machines in the Middle East. The vending machine is an automated device that allows Consumers to replace and buy new 11 KG Cylinders all day long 24/7, where customers are allowed to do payments through mobile phone or POS.

The machine has a feature of image recognition system that allows to verify the user and confirm the status of the cylinder replaced this machine is available for leasing for big compounds or smart cities or for sale for cylinder distributors in Oman or any Country in the Middle East.



Cylinder LPG

Muscat Gases Company SAOG is a pioneer of LPG gas bottling in Oman. We operate 5 modern LPG bottling plants in Rusayl, Sur, Mussana, Izki and Wadi Kabir. The strategic locations of these plants ensure uninterrupted and timely supply of refills to all Domestic and Industrial customers. Current bottling capacity is 13,000 Cylinder of the size of 22 KG per day. These bottling plants are equipped with modern electronic carousels, state of the art safety measures meeting all relevant international standards.

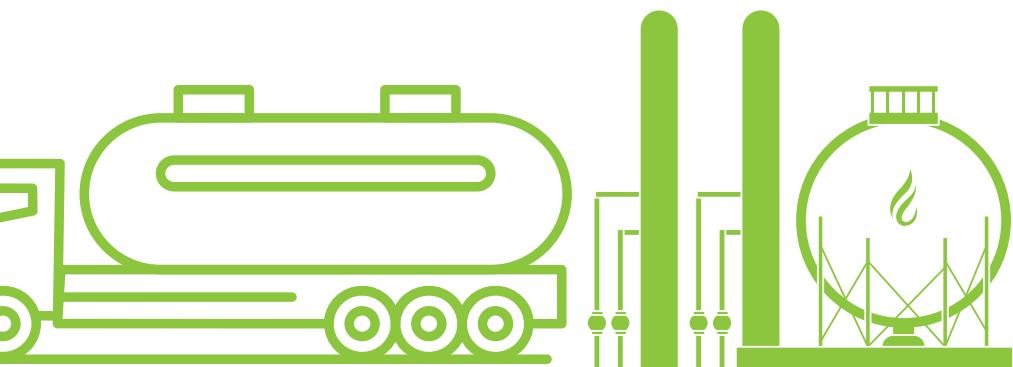
Other consumer-friendly features include a tamper-proof, heat-shrink seal on each cylinders.



Bulk LPG

We operate 5 modern LPG bulk plants in Rusayl, Sur, Mussana, Izki and Wadi Kabir. The strategic location of these plants ensure uninterrupted and timely supply of bulk to all Commercial and Industrial customers. We are currently operating a large fleet of 76 units constituted of 23 LPG tankers (23MT), 3 LPG bobtails (8MT) and trailers for transportation to various customers.

Our dedicated team delivers more than 30,000 MT of LPG per year to Local Bulk customers.



Aerosol Propellant (MGAP)

We manufacture and supply special blends of Deodorized LPG under the name MGAP (Muscat Gases Aerosol Propellant).

We filter the LPG gas coming from the refinery from the smell by passing it in columns filled with a substance (Molecular Sieve) that works to absorb the smell of gas and repeat this process for several hours until we make sure to get the best in class quality. We are selling MGAP to several customers in bulk and cylinders to suit the exact requirements of the customers in Perfume and Insecticide Industries, Air Refresher and WD40. Our dedicated team delivers more than 5,000 MT of LPG per year for MGAP customers.



Export LPG

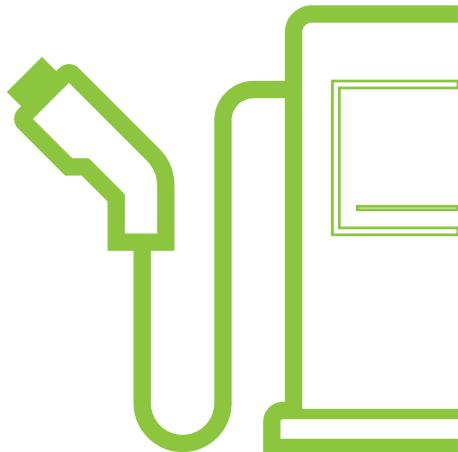
Muscat Gases Company SAOG is the market leader in Oman in LPG Bulk Export to the GCC and the region. We have built a strong partnership with export refineries to become the sole distributor of Oman LPG. We have developed a long-lasting partnership with customers in the GCC and the region to supply LPG for coming years.

Our dedicated team delivers more than 70,000 MT of LPG per year for export customers.



Auto Gas LPG

Muscat Gas is the only LPG Distributor in the Middle East distributing Auto Gas through its fixed and mobile Auto Gas Stations that are currently available in Oman.



Auto Gas Systems

Muscat Gas is the only Gas distribution Company in the Middle East installing Auto Gas Systems. The system is a hybrid system that supports the engine to work on both LPG and any other energy source. The system works on all kind of vehicles operating on:

- ✓ Diesel
- ✓ Gasoline

The conversion service is currently Being implemented on:

- ✓ Heavy Vehicles
- ✓ Busses and Transportation
- ✓ Boats
- ✓ 4x4 Cars
- ✓ Commercial Cars



●●● ENGINEERING – DESIGN INSTALLATION

LPG Systems

Muscat Gases Company SAOG is a pioneer of LPG Bulk distribution in Oman. Over the past 3 decades, we have developed a center of knowledge and excellence in the whole supply chain of LPG business. The company is capable of providing Turnkey projects for the design, consulting, supply, installation, testing & commissioning of gas systems.

What is LPG?

LPG – Liquefied Petroleum Gas, a mix of propane and butane, is a combustible hydrocarbon gas utilized primarily for powering fuel for industries, heating and cooking. LPG consists of two hydrocarbons Propane (C₃H₈) and Butane (C₄H₁₀). Propane has a boiling temperature of -42°C, whilst butane has a higher boiling point at 2°C.

Where does LPG come from?

LPG has two origins: approximately 60% is recovered during the extraction of natural gas and oil from the earth, and the remaining 40% is produced during the refining of crude oil.

Why LPG?

LPG is a rich fuel source with a higher calorific worth for every unit than other ordinarily utilized energies, including coal, diesel, petroleum, fuel oils and biomass-determined alcohols. This means that LPG flames burn with more heat and has higher efficiencies. It can be transported, stored and used anywhere in the world. LPG is clean burning, has lower emissions and is non toxic.

Uses of LPG

There are thousands of applications of LPG ranging from commercial businesses, hotels, restaurants, industries, farming, transportation, heating, household cooking and so on. Even aerosol industries and chemical industries need LPG to run their factories. It is an important source of energy for millions of people all around the world. LPG is known as the world's most multi-purpose fuel. It is virtually free of Sulphur and hence, vehicles that can run on LPG produce no soot. Out of 600 million passenger cars, about 16 millions are powered with auto gas. This figure represents 3% of the entire number of vehicles driven with LPG.

Properties of LPG

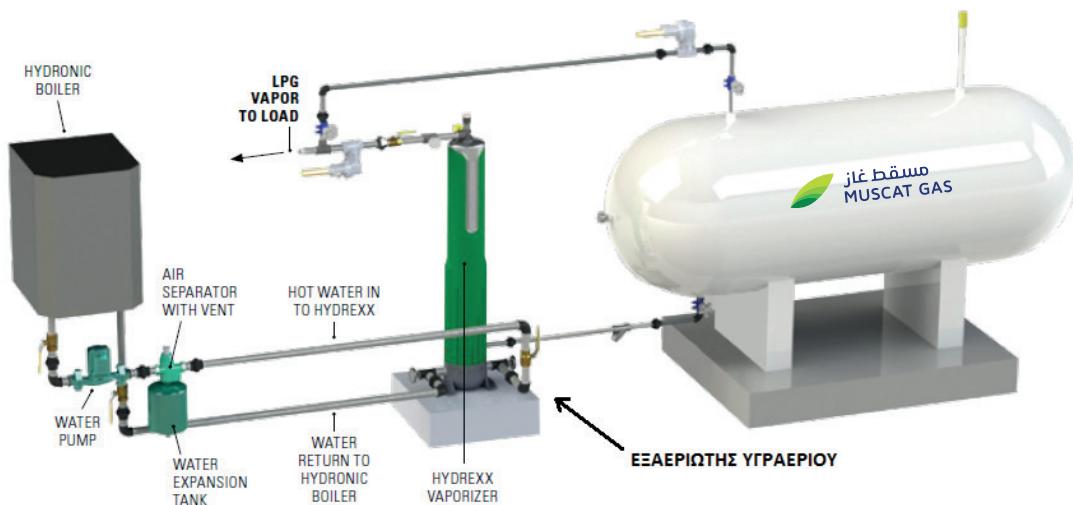
When subjected to pressure or lowered temperature the volume of liquid LPG shrinks to 1/250 of the gas. This is the property that enables easy storage and transportation. The smell of gas is added during the refining process as LPG does not have any smell.

LPG System – Central

A central gas system is a method of distribution of LPG fuel from a central storage tank to one or more points of use. The choice of components in the system will be determined by the load requirements and nature of the installation.

A central gas system normally consists of:

- Central Storage tank – Underground or Above Ground Type depending on the installation.
- Pressure reduction and Distribution Panel – Selection of regulators are done to control the fuel flow as per the requirements.
- Pipe Network – piping are used to distribute the LPG from the storage yard to different delivery locations.
- Gas leak detection and monitoring – A network of fixed gas detectors are installed at delivery locations and storage yard.
- Vaporizers – devices employed to provide external heat for transformation of liquid to vapor LPG and maintain the vapor pressure in the system.



SNG Systems

Also known as Propane air or liquefied petroleum gas air (LPG-air) is a perfect substitute for natural gas fuel. It can be used as a standby fuel system that provides a backup source of energy when there is disruption in the natural gas supplies.

Why SNG ?

Most industries require a back-up system for their main energy source which is natural gas, whenever there is a risk of energy interruption. Fuel interruption halts mass production and as a result major economic losses are incurred. In some cases fuel interruptions are devastating. Fuel shortage not only results in production losses but there are also hundreds of thousands of Riyals lost in capital investments. SNG systems allow industries to carry on their work without any interruption.

What is SNG?

SNG is produced by blending air (compressed) with vaporized LPG. SNG can deliver the same characteristics as the Wobbe index of natural gas and in most instances it can be burned in place of natural gas without the need of changing the equipment. The Wobbe Index is an indicator of the interchangeability of LPG and Natural Gas.

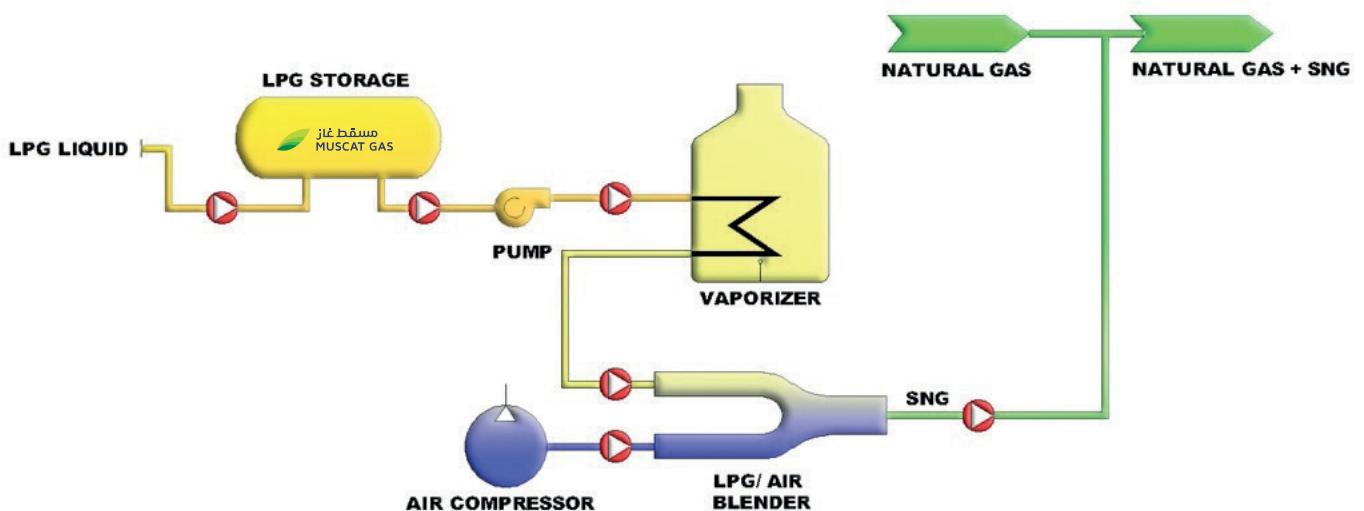
The Wobbe Index (WI) is the main indicator of the interchangeability of fuel gases and is frequently defined in the specifications of gas supply and transport utilities. Wobbe Index is used to compare the combustion energy output with different composition of fuel gases. If two fuels have identical Wobbe Indices then for given pressure and valve settings the energy output will also be identical. The Wobbe Index is a critical factor to minimize the impact of fluctuations in your fuel gas supply and can therefore be used to increase the efficiency of your burner or gas turbine applications. Unlike diesel, fuel oil or propane, SNG does not require additional piping, regulators, or special fuel delivery systems inside the facility.

Properties of SNG

The principle of an SNG system starts with the conversion of liquid LPG into vapour which is then mixed with air at pre-set ratios. Since the BTU content of LPG is higher than that of SNG it needs to be diluted. The vaporized LPG is run through a mixer that mixes LPG and air to create a mixture compatible to SNG.

Flow process of an SNG system

Liquid LPG is stored in tanks or cylinders under pressure. The amount of storage depends on the output capacity of the facility, frequency of supply etc. When the SNG system is in operation, LPG is transferred from the tank via a pump to an LPG vaporizer. As the LPG liquid passes through a vaporizer it is heated to the vapor phase. The vaporizer also provides adequate heat to prevent condensation. The super heated LPG vapour is then blended with air supplied from an air compressor to a specific ratio creating the SNG. The system's flow control system then allows injection of the SNG into the distribution pipeline as required.



●●● SAFETY

HSE Policy

Muscat Gas is set to be the leading gas solutions company in the region, leading the growth of the sector by working on innovative initiatives and offering safe, reliable and high-quality gas solutions to its customers. The importance of security and safety management stems from the importance of the role assigned to it at the level of the institution, where it is critical to the protection of life, property, environment, leadership, guidance and rule-making, and the spread of preventive awareness. We work hard by developing, training and applying quality standards to reach them.

Quality Policy

Muscat Gases Company SAOG is committed to producing Industrial gases and LPG that consistently meet specifications, are conveniently available in all parts of Oman, while ensuring the utmost safety in production and distribution. We recognize that our goals will only be achieved by complete commitment to effective and efficient business management and good business practices at all levels and is appropriate to the purpose and context of the organization and supports its strategic direction, provides a frame work for setting quality objectives and develop employees to utilize their capabilities for continual improvement in all aspects of Quality Management System and actions to address the risk and opportunities.



Awards & Certificates





Committed to **Safe & Clean Energy**







PC 124, Athaiba North, Way 48,
Sultanate of Oman

📞 +968 22526900

✉️ info@muscatgas.com

🌐 www.muscatgas.com