COMPANY PROFILE

Synergy Gases (K) Ltd

P.O. Box 83225-80100
Mombasa
Kenya

Tel: +254-20-2353331 / 2 / 3
Mobile: +254 735 822333 & +254 711 435333
Fax +254-20-2353334
Email: info@synergygases.com
Website: www.synergygases.com

SYNERGY GASES

Quality is our strength

CONTENTS

INTRODUCTION

Synergy Gases (K) Ltd commissioned its Oxygen and Acetylene plants in 2008.

Our operations are based at Mombasa in Kenya, along the shores of the Indian Ocean on the main Mombasa – Nairobi Highway.

Synergy Gases (K) Ltd Specializes in the Manufacture of Acetylene, Oxygen, Medical Oxygen, Nitrogen, Helium, Argon, Carbon Dioxide, Nitrous Oxide, Compressed Air and specialist mixtures tailored to our clients needs.

We supply compressed gases for every process, from welding to life support to instrument calibration. We ensure that the gas you select is the most appropriate for your process and is used efficiently and safely

Our dissolved acetylene production is free from poisonous gases such as phosphorous and arsenic sulphur in order to ensure the safety of users. We also maintain the highest quality of oxygen with a purity of 99.8%.

All our products are manufactured in compliance to the highest Quality Management systems, under strict quality control measures.

We are the first company in Kenya to receive their Diamond Mark of Quality issued by the Kenya Bureau of Standards.

The mark is a symbol of product quality excellence.

Synergy gases can also supply gas in Bulk form and has a specialist team of experts with experience in liquid gas pipe line and cryogenic installations.

MISSION

Synergy Gases (K) Ltd as an emerging regional producer of industrial and medical gases is committed to producing goods that will constantly meet the highest international quality standards, continuously increasing its market share and return on investment through a client centered approach and support initiatives that promote the sustainability of the environment and the social economic advancement of mankind to the greatest heights.

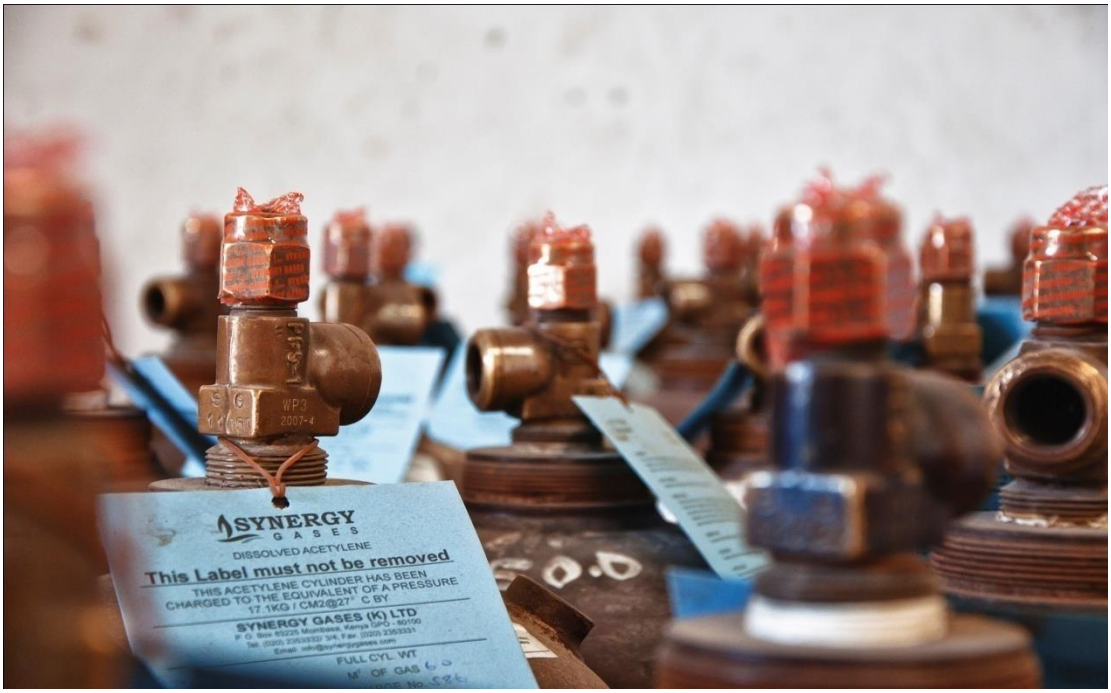
QUALITY POLICY

Synergy Gases is committed to the highest standards in quality and environmental control. Such standards will be obtained through meticulous adherence to all aspects of quality and environmental assurance, with particular reference to the following:

- Total Commitment of all employees.
- Appropriate training to ensure that all employees posses the skills necessary for the excellent performance of their duties.
- Effective control of all processes and procedures.
- Awarded Diamond Mark of Quality (A Symbol of Product Quality Excellence)
- ISO 9001:2008 Registered Firm


SYNERGY
GASES
KBV 415G
ACETYLENE
ARGON
CARBON DIOXIDE
GAS MIXTURES
HELIUM


SYNERGY
GASES
MANUFACTURERS OF
INDUSTRIAL & MEDICAL
GASES
www.synergygases.com
PRIVATE
KBV 506D
JAI GAYATRI
KBV 415G


SYNERGY
GASES
DISSOLVED ACETYLENE
This Label must not be removed
THIS ACETYLENE CYLINDER HAS BEEN
CHARGED TO THE EQUIVALENT OF A PRESSURE
17.1KG / CM2@27° C BY
SYNERGY GASES (K) LTD
FULL CYL WT

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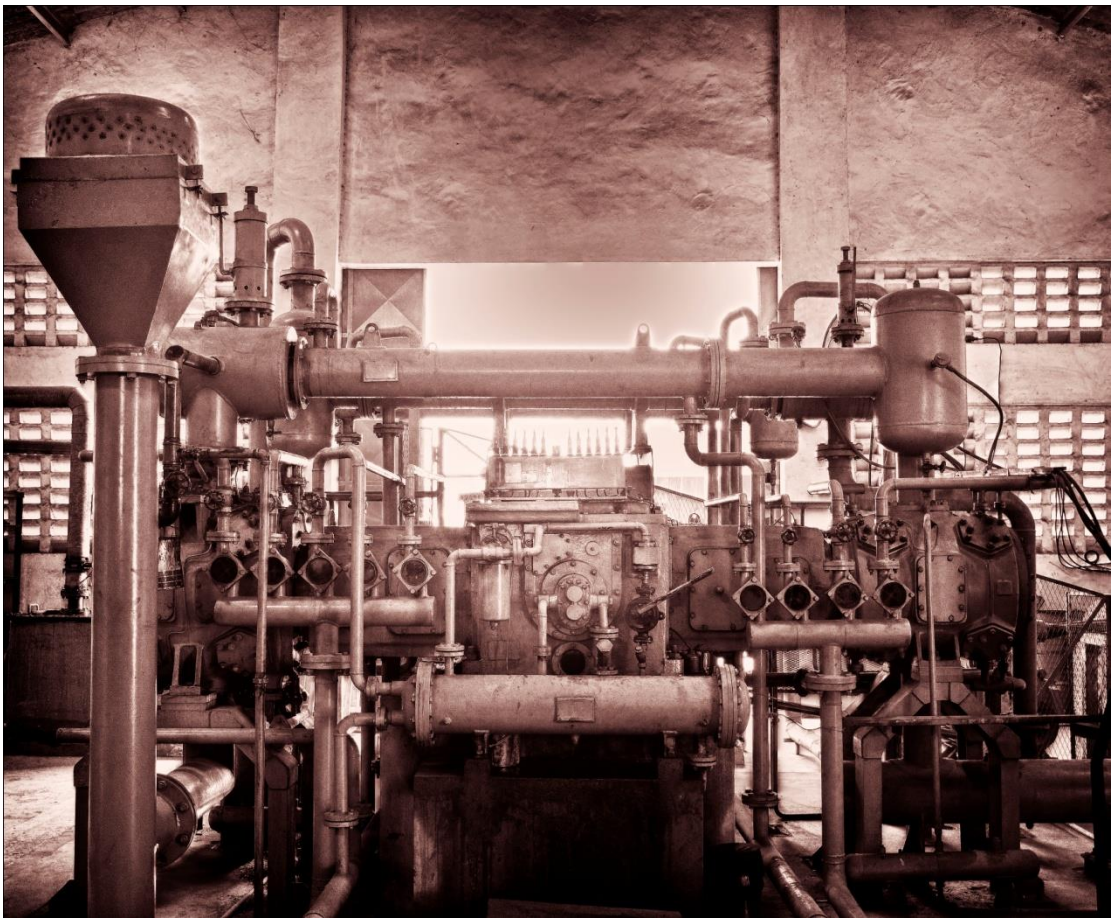
ASU & Expansion Engine of Oxygen Plant

M.S.Battery for Oxygen Plant



Acetylene

Supplied as Dissolved Acetylene (DA) – dissolved in acetone under pressure in a range of specialized cylinders to ensure stability and to avoid detonation.

GRADE: Industrial 98.5% (Min) and High Purity 99.6% (Min)

Processes that use acetylene

When burned with oxygen, acetylene produces the hottest flame of all the fuel gases (3200°C). Acetylene's high level of reactivity makes it a very useful fuel gas for:

Welding – oxy-acetylene welding is a cost-effective alternative to electric welding, and a good alternative for remote locations that lack a reliable electrical supply. Acetylene is the only fuel gas that creates a flame hot enough to weld steel.

Cutting – oxy-acetylene cutting offers better cut quality, higher cutting speed, faster cut initiation times and reduced oxygen use compared to other fuel gases.

Heat treatment – oxy-acetylene is used for flame hardening of steel in-situ or for large components that do not fit in a furnace.

Coating – oxy-acetylene used for flame spraying with wires or powder onto metals and ceramics, and non-stick mould coatings in metal casting.

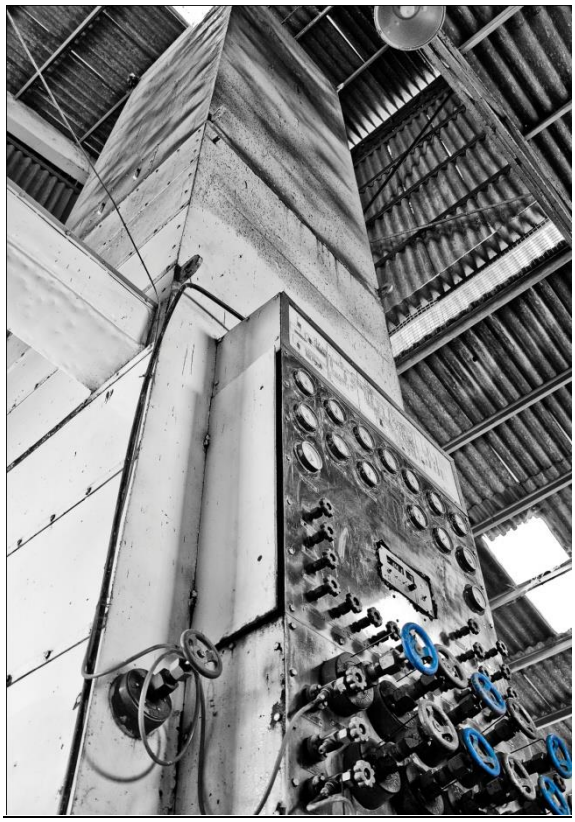
Safety Information

Acetylene is an unstable gas that can suddenly decompose in the form of a deflagration or detonation. Therefore large volumes should not be stored in piping systems and vessels and care must be taken to prevent ignition sources, including accidental heating of pipes and electrostatic sparks.

Acetylene forms unstable and potentially explosive compounds with copper and silver and these materials should be excluded from acetylene piping systems. These piping systems need to be designed by specialists in that field.

Flash-back or burn-back in acetylene hoses is a common hazard due to acetylene's decomposition initiated by high temperatures at the welding or cutting torch head. Specialist hoses and regulators must be used.

Oxygen & Medical Oxygen



GRADE: Industrial and Medical 99.8% (Min) and Technical 99.997%

UNIT OF DELIVERY: Cylinder or Bulk Liquid

Processes that use oxygen

Oxygen's unique property in supporting life leads to its use in:

Life support – resuscitation, artificial ventilation, anesthesia, cardiovascular stabilisation and infection reduction in hospitals and emergency vehicles. We also supply breathing oxygen for diving.

Health and safety – for use in medical centres and first aid packs.
Cutting – oxy-fuel processes for cutting steel up to two meters thick.
Welding – oxy-fuel processes for welding carbon and alloy steels, stainless steel, cast iron, aluminum, nickel and copper alloys.
Coating – oxy-fuel processes for producing hard, wear resistant coatings on metal components.
Water treatment – maintaining micro-organisms in the activated sludge process for waste water treatment (VITOX) and reducing sewage odours by maintaining sewage in an aerobic state (PRIMOX).

Combustion – increasing furnace productivity using oxygen enrichment, oxygen lancing or oxy-fuel burners.

Packaging – modified atmosphere packaging (MAP) for fruit and vegetable respiration, colour retention in red meat and to avoid anaerobic conditions in white fish.
Aquaculture – oxygenation of water to boost fish-farm performance and sustain live fish during transportation.
Rivers and lakes regeneration – oxygen injection to correct depletion due to pollution and stagnation. Oxygen will not burn but vigorously supports the combustion of many substances.

Safety Information

Oxygen is not toxic at atmospheric pressures. Oxygen deficient atmospheres cause asphyxiation and death. Oxygen enrichment is just as dangerous and difficult to detect. Clothing and flammable materials will burn violently if impregnated with oxygen. Oxygen reacts violently with oil and may spontaneously burn with an explosive force

Nitrogen

One of Nitrogen's most useful properties is its chemical inertness to nearly all substances at ambient and moderate temperatures.

GRADE: Industrial 99.9% (Min), Technical 99.95% (Min) and High Purity 99.999%

UNIT OF DELIVERY: Cylinder or Bulk Liquid

Processes that use Nitrogen

Food packaging – in mixture with carbon dioxide and oxygen in modified atmosphere packaging (MAP); pure to reduce oxygen concentration in respiring food products packaging.

Heat treatment – as a protective furnace atmosphere for heat treatment of the most reactive metals.

Inerting, blanketing or padding – pure or in mixtures, as a protective atmosphere against oxidation or combustion by atmospheric air and contamination by moisture.

Purging – to displace or dilute unwanted gas or vapour, to reduce oxygen concentration or remove air, flammable or toxic vapour.

Flushing – to flush unwanted gases from solutions, due to its only slight solubility in a wide range of liquids.

Safety Information

Nitrogen is not toxic and non-reactive except at high temperatures. If insufficient oxygen is present, high nitrogen concentrations cause asphyxiation and death. They are no physiological warning signs to nitrogen enrichment. Nitrogen does not support combustion. Liquid nitrogen has the capacity to inflict dangerous frost bites.

OTHER PRODUCTS:

1) NITROUS OXIDE

CHARACTERISTICS:- Oxidizing compressed gas with sweetish taste.

GRADE:- Medical 99.9% Purity

TYPICAL APPLICATIONS:- As an inhalant type of anesthetic in hospitals and in laboratories its used as a "Atomic absorption spectro photometer"

2) AIR

CHARATERISTICS:- Non flammable gas, compressed at High pressure.

GRADES:-	**Industrial –O2**	**(19.5% - 23.5%)**
	Breathing – O2	**(20.0% - 22.5%)**
	Zero – O2	**(22.0% - 22.5%)**

TYPICAL APPLICATIONS: In purging, medical/ Industrial and undersea breathing.

3) ARGON

CHARACTERISTICS:- Inert Gas, Compressed at High Pressure.

GRADE: High Purity 99.999% (Min)

TYPICAL APPLICATION: Inert Gas shield for welding and cutting.

4) CARBON DIOXIDE

CHARACTERISTICS:- Colour less, Liquefied, high pressure gas, slightly acidic.

GRADE: Technical 99.9 % (Min) Food Grade 99.99% (Min)

TYPICAL APPLICATION: Metal welding and Hardening, PH control in water treatment, Fire fighting and carbonation of soft drinks.

5) DRY ICE

Frozen Carbon Dioxide, temp -79 degrees Celsius In the form of pellets an blocks

Pellets from 2mm-16mm

Blocks from 150mm x 100mm x 20mm

6) SPECIALIST MIXTURES AS PER THE CLIENTS REQUIREMENTS.

Synergy Gases Pioneers in the special Gases Mixture Technology in the country and has amassed data on the compatibility of various combinations of Gases.

Calibration Standards

These are multi-component mixtures Volumetrically Prepared and independently analysed by two different high precision systems which must agree to within +/- 2%. Each and every cylinder us issued with a certificate of analysis of the components.

Specialist Mixtures

These are multi-component mixtures, specifically prepared to suit customer's specific requirements and specifications to process application, research and experimental applications. They are analyzed using high precision gas chromatographs to less stringent tolerances than calibration standards.

Normal Grade Mixtures

These mixtures are prepared by specially developed mixing processes and are then analyzed by direct reading analyzers within a measuring accuracy of +/-2% relative. These mixtures have a tolerance on proportions of +/-1% (absolute) or +/-5% (relative) whichever is greater.

7) IMPORTED GASES

All types of Refrigerant Gases

Helium (He) – Technical and High Purity

Sulphur Hexafluoride (SF6)- Technical Grade

Ethylene Oxide – Technical Grade

8) INDUSTRIAL & SCIENTIFIC GAS CONTROL SYSTEM

Synergy Gases offers a comprehensive package to the gas industry for their individual gas applications.

Our service includes supply of standard gas control range through items individually designed and manufactured to customers requirement, including testing, installation and commissioning.

Permanent Gas manifold

We offer dual type manifold with two sets of cylinders connected on either side of the manifold. This facilitates one set in operation whilst the other set remains in standby. Our design manifolds are 2x1 upto 2x8.

We also design and construct larger size manifolds in accordance to the individual customer requirements.

Working pressure ranges from 150 bar to 300 bar and conforms to BS standards.

Cylinder Racks/ Quads with Manifold

Synergy Gases manufacturers cylinders quads for bundles of 6 to 42 numbers of cylinder. All quads are approved as per ISO 10961:2010 as well as Lloyds British Approved.

WE ARE EFFICIENT AND RELIABLE PARTNER FOR ALL YOUR CONSTRUCTION AND OPERATIONAL REQUIREMENTS. WITH OUR LARGE STORAGE CAPACITY AND WIDE SPREAD DISTRIBUTION NETWORK, WE CAN PROVIDE OUR CUSTOMERS WITH A CONTSTANT AND RELIABLE SUPPLY OF ALL GASES.

SYNERGY GASES

A touch of Ilenya

KEBS
DIAMOND MARK OF QUALITY

KEBS
STANDARDIZATION MARK

QAS INTERNATIONAL
ISO 9001:2008
REGISTERED FIRM