

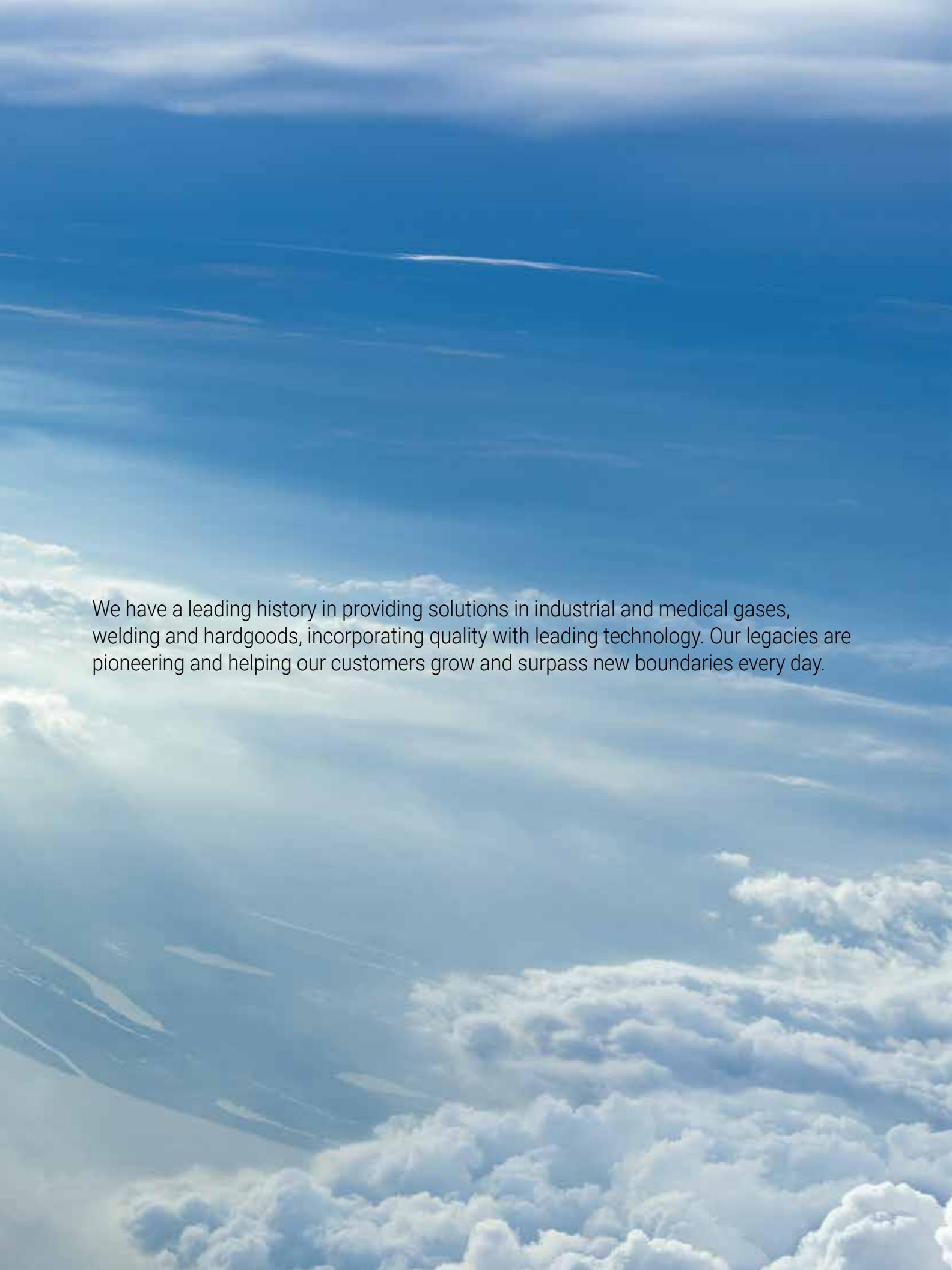


Pakistan Oxygen

Delivering commitment



Industrial and medical gases solutions,
welding electrodes and hardgoods

The background of the image is a wide, clear blue sky. In the lower third of the image, there are large, fluffy white clouds. The rest of the sky is a bright, pale blue with very thin, wispy white clouds scattered across it.

We have a leading history in providing solutions in industrial and medical gases, welding and hardgoods, incorporating quality with leading technology. Our legacies are pioneering and helping our customers grow and surpass new boundaries every day.

Table of content

About Pakistan Oxygen	5
Our People	6
Strong Legacy	7
Our Code of Conduct	8
Delivering Solutions	9
Spectrum of Innovative Applications	10
Geographic Presence	12
Our Quality Standards	13
Safety and Environment Controls	14
Our Products and Services	16
Healthcare Gases and Solutions	18
Industrial Gases and Solutions	23
Welding Consumables and Hardgoods	27
24 Hours Customer Service	29

Our Vision

To improve the quality of life and wellbeing of people, communities and environment by operating in all sectors of the economy; envisage growth aggressively as a market leader.

Our Mission

To remain the market leader in industrial and medical sector while growing aggressively in welding & hardgoods.

We shall achieve this profitably on sustained basis through the talent of our people, product reliability, superior product service & quality.

We would provide innovative solutions to our customers along with enhancing trust of our shareholders while keeping highest standards of ethics, safety and environment.



About Pakistan Oxygen

your trusted partner for progress

Sustaining leadership position in the market, Pakistan Oxygen continues to move forward in its growth journey. We have the widest range of bulk and compressed gases solutions serving both our healthcare and industrial consumers, as well as welding consumables, welding equipment and safety gear. At Pakistan Oxygen, our highly qualified and experienced engineers, technologists and operations team excel at providing dedicated support and services.

We also provide related support and maintenance services, and technical trainings related to handling of gases, and safe welding practices. With continuous investments in our state -of-the-art assets, skills, and resources, the company leads forward a legacy to rise above expectations.

We serve as a strategic partner for our customers, catering to their evolving needs with our skill and utmost dedication, and supporting them to excel in their industry.

The company takes forward a strong legacy set forth by British Oxygen Company and the Linde Group. With diversified skills and expertise, we serve over 1,500 customers across a wide range of industries ranging from chemicals and petrochemicals to steel, food and healthcare. Our professional staff manages 24-hours operations to support customers wherever they may be located.

By harnessing the strength of world-class engineering. and synergizing the process, we can develop the best in class solutions tailor-made to help our customers grow. That is why, we just not only serve the need, but also enhance the value chain, thus supporting our customers' growth plans.



Our People

delivering value everyday

Our greatest asset is our team of talented people who work every day to add value to our customers' business streams by providing tailor-made solutions for their growth and development. Through innovation, and leveraging the latest technology, they create solutions that are efficient and reliable, and conform to the highest standards of safety and quality.

Believing in a culture of innovation, and continuous improvement to realize better ideas and solutions, we empower our team and support them in their initiatives to achieve the most effective solutions. To develop, nurture and value the skills of our people remains at the centre of our policy to develop a highly effective work culture and provide the best services to customers.

Technical and Plant Teams

Skilled and proficient at their tasks, they ensure smooth planning and execution at plant sites and at customers' locations to provide the best technical solutions, compliance and maintenance.

Delivery and Operations Teams

With committed timelines, our delivery and operations teams deliver efficiently while upkeeping safety protocols. Pakistan Oxygen has a leading network of distribution across the country.

Sales, Marketing and supporting functions

Our sales, marketing and supporting functions teams work diligently to deliver complete value to customers. They are confident and adept at their work and aspire to be the best in providing the leading services.



Strong Legacy

foundations that run decades

With more than 80 years of heritage of providing solutions in industrial and medical gases, welding electrodes and hardgoods, our understanding of our customers' requirement is unparalleled. Our knowledge, capability, and aspiration for continuous improvement makes us an ideal partner for meeting customers' requirements.

1935	Indian Oxygen and Acetylene Company.	2009	New nitrous oxide plant commissioned at Lahore.
1949	The Company was incorporated as a private limited company under the name of Pakistan Oxygen and Acetylene Company Limited.	2010	BOC Pakistan announces Rs. 2 billion investment to build Pakistan's largest air separation plant in Lahore capable of producing up to 150 tons per day.
1957	The Company's name was changed to Pakistan Oxygen Limited.	2011	BOC Pakistan rebrands as Linde Pakistan on 19 September.
1995	Renamed as BOC Pakistan Ltd; no change in pattern of shareholding.	2012	New state-of-the-art Air Separation Unit (ASU), the largest air separation plant in the country commissioned at Sunder Industrial Estate, Lahore.
1997	BOC Pakistan becomes a strategic partner for Lotte PTA; installs Pakistan's largest air separation unit at that time capable of producing up to 100 tons per day.	2014	Linde Pakistan invests in a new state-of-the art nitrogen generator at PARCO refinery in Qasba Gujrat.
2000	Becomes a strategic supplier for PARCO, the country's largest refinery, through on-site MicroLN generator; also sets up an ASU at Taxila for meeting increased oxygen, nitrogen and argon demand in northern Pakistan.	2016	Carbon dioxide compression facility commissioned at West Wharf site in Karachi.
2004	BOC Pakistan invests in a 60 tons per day carbon dioxide plant in Multan to meet the demand from the beverage sector in Pakistan.	2018	Linde Pakistan Limited rebrands as Pakistan Oxygen Limited after acquisition of majority shareholdings of the Company by Adira Capital Holdings (Private) Limited ("Adira") and its Affiliates; inaugurated Sukkur compression site.
2008	Invests Rs. 214 million in a 23 tons per day carbon dioxide plant at Port Qasim to ensure reliable product availability for key beverage customers.	2019	Inaugurated Electrode Manufacturing Plant at West Wharf site in Karachi.

1935 – 2019

Our Code of Conduct

testament to our values

We work and live by a set of principles and values which encompass our fundamental principles of safety, integrity, sustainability and respect, and our core values of passion to excel, innovating for customers, empowering people and thriving through diversity. Together our principles and core values underpin all our actions, decisions and behaviour, and express what we stand for as an organization and what differentiates us from our competitors. These principles and core values are embedded in our organization and resonate in everything we do.

One of our most valuable assets is our reputation for uncompromising ethics. Integrity is one of our four guiding principles ensuring that we always act with honesty and fairness with all the stakeholders. At Pakistan Oxygen, employees must comply with the code of conduct and we actively monitor the standards set out in the code. The code of ethics provides guidance to all employees on their dealing with all stakeholders, markets, financial reporting and communications.

At Pakistan Oxygen Limited, we adhere to strong ethical values to create a fair and impartial work culture. We believe that sustainability only comes through basing ethics at the centre of every foundation.

To ensure fair play, whistle blowing policy has been implemented to realise and eradicate any unprincipled behaviour and create a system built on honesty, integrity and accountability.

Corporate responsibility towards the environment and society has always been a high priority for us. We believe in giving back to the community through various community projects, student welfare programs and environmental campaigns.



Delivering Solutions

inspiring technical excellence

Each customer requirement is unique that deserves a strategic solution that is an embodiment of technical proficiency and cost efficiency. Our well-trained technical team can deliver solutions to the most unique set of requirements and challenging scenarios. We continue to invest in our resources, skills and technologies to provide services as per industry needs and dynamics.

Our customers are leaders in their fields, and we understand the importance of service reliability and value the trust they place in our capabilities. Our product supply options are vast depending on the required volume, pressure and flow rate. As per the required criteria, we offer gases supply via pipeline distribution system, on-site dedicated plants and product delivery via our vast transportation network.

We provide value added services including technical training on gas and equipment usage, and safe welding practices. Our trained personnel can guide customers regarding improving operational efficiency in their processes.



Spectrum of Innovative Applications

driving process efficiency

As a technology leader, we strive to constantly raise the bar and develop high-quality products and solutions that create added value, clearly discernible competitive advantages, and greater profitability for our customers. Our customers use our gases to improve efficiencies, cut process costs and enhance quality and productivity. Even more importantly, our innovative gas technologies and applications are paving the way for more sustainable, green lifestyle choices and practices.

Solutions for the food & beverage industry

Food-grade industrial gases are an effective and natural way of meeting process requirements including preservation and carbonation. Liquid nitrogen has the ability to reach extremely low temperatures of 196-degrees Celsius. This property enables its use for cryogenic freezing, preserving food freshness and quality. It is also used in packaged food stuff to preserve quality and enhance shelf life. We can provide low or zero-additive alternative solutions for preservation compared to conventional techniques. Our state-of-the-art technologies and applications optimise processes, improve quality, increase yield, protect quality during transport and extend shelf life. We are able to support our customers from dairy, beverages, meat, bakery and fruit and vegetables to the packaged food businesses through our extensive application portfolio which covers:

- Chilling & freezing
- Food preservation
- Hydrogenation
- In-transit refrigeration
- Purging
- Water treatment
- Carbonation

The full spectrum of metal fabrication technologies

From general welding to highly specialised laser job shops, Pakistan Oxygen is able to support the varying application needs across the full application and equipment spectrum, combining both traditional and new cutting, welding and coating processes. We provide the equipment, consumables and safety gear as well as the safety training to ensure that handling and welding upholds the best safety practices. Our engineers are available to guide you through the extensive range of welding and cutting options and compressed gas mixtures available to help you make the choice best suited to your budget, productivity and application.

Meeting speciality and fine chemicals industry needs

Fine and speciality chemicals cover the manufacture of chemicals used in everything from adhesives, sealants and coatings to pharmaceuticals, detergents and electronic goods. Highly complex with a huge portfolio of patented technologies, this sector is under pressure to meet increasingly stringent safety and environmental regulations and hone competitiveness, particularly as more and more fine chemicals are evolving into commodities. Manufacturers are challenged to innovate in the search for environmentally cleaner reactions and smart solutions to highly specialised problems such as need for a blanketing gas and controlled atmosphere for synthesis. Our gas enabled technologies and specialty gases can help fine and speciality chemical players meet these challenges.

Applications for steel and metal production

Steel and metal production industries face stiff competition both locally and from imports. Striking the right balance between profitability and competitiveness requires vigilant control over fuel consumption, resource management, efficiency, productivity and quality. Pakistan Oxygen offers gas solutions to increase productivity, lower fuel consumption and other costs to support the metal industry in attaining their efficiency and profitability objectives. We supply industrial gases to a wide range of customers covering the full applications spectrum – from ore reduction and metals recycling through refining and casting, to reheating and metal working and, finally, heat treatment to deliver efficiency gains.

Solutions for the oil and gas segment

Challenges to abide by environmental regulations are particularly acute for oil and gas customers including refineries due to the nature of operations. Our gases applications can support customers in addressing their challenges. Our expertise will bring you quality and productivity benefits in the following areas in particular:

- Inerting, purging and blanketing
- Enhanced Oil recovery (EOR)
- NOX removal / SOX removal
- Diesel Hydrodesulphurisation

Improved quality of life through therapies and medicines

The pharmaceutical and life sciences industry is dedicated to improving quality of life by developing therapies and medicines that promise longer, healthier and more active lives. As a supplier of pharmaceutical-grade gases, we understand the pressures facing pharmaceutical companies and have developed numerous gas innovations that help meet this industry's needs. Traditional mechanical cooling systems can be replaced with cryogenic cooling systems driving greater efficiency and preservation standard. We can also supply research grade and specialty gases as per the specification.

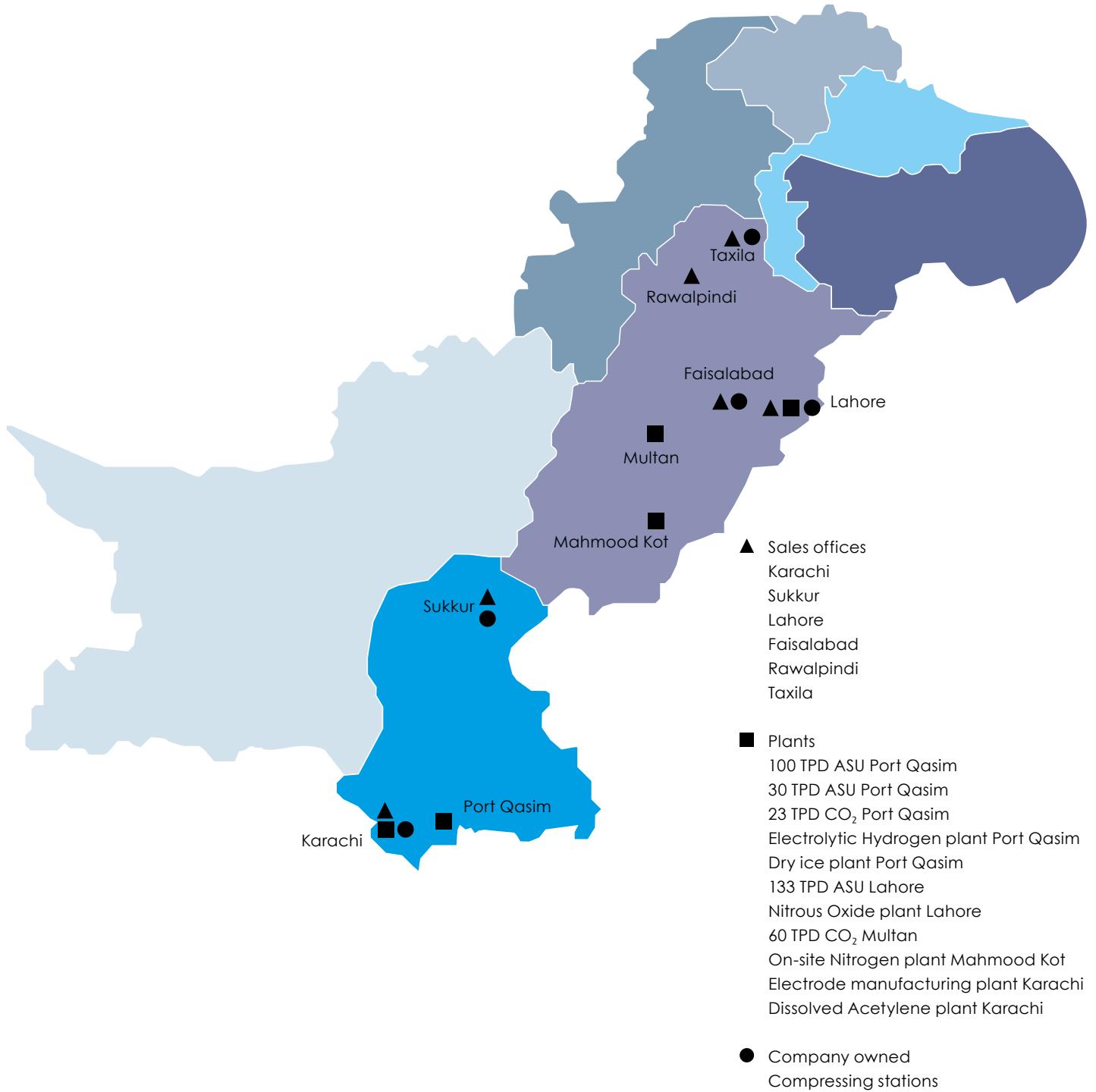
Driving innovation with the latest gas applications

Our gas-enabled technologies can open new areas for innovation, improve chemicals handling, reduce variable and fixed costs, and boost the level of process automation for our customers. Pakistan Oxygen has the experience and capability to deliver complete solutions including engineering, project handling, revamping and commissioning. Our portfolio includes equipment and control systems customised for each gas, product and its handling guideline. Our teams of engineers and market specialists work with customers to understand their business needs and their existing processes, and develop gas and welding applications that are tailored specifically to their requirement.

Geographic Presence

strong footprints

Pakistan Oxygen Limited has an extensive industrial, medical and specialty gases, and welding goods distribution network in the country that is backed by our plants at strategic locations. With each new investment in our resources we have built on our presence and developed greater relations with the industry, based on credibility of service and quality.



Our Quality Standards

resolutely compliant

We realise the potential hazard that an unqualified gas can pose to any process, leading to quality issues and operational disruptions. Which is why quality control and compliance remains at the centre of everything we do. At each step of the supply chain, we ensure that the purity of the gas and the product stays intact, and it reaches you with our trademark seal of quality and excellence.

With strong emphasis on safety and quality compliance, we have built a brand that you can trust, and we rigorously build up on that every day to exceed the quality benchmarks that we have set for ourselves. Quality tests and product monitoring is routinely conducted at all our sites, and we invite our customers to visit us, so we can demonstrate our quality controls, and safety compliance policies. We have attained ISO 9001:2015 Quality Management System certification a for our plant and LLOYD's certified registration for our welding electrodes and continue to focus towards excellence every day.

Quality Control Lab

In our QC lab, the specification of the gases mixtures is tested via designated equipment including gas chromatography, impurity and moisture analyzers and binary gas detectors.

Product Compliance Protocols

We provide Certificate of Compliance (COC) certificate as per our customer and product need to ensure strict compliance. Additional testing can also be carried out as per customer request.

Routine Maintenance and inspection

Following our strict criteria towards quality controls, scheduled checks and audits are routinely conducted to review plant performance, impurities and any deviation in quality.



Safety and Environment Controls

unwavering commitment

At Pakistan Oxygen, we put health, safety and environment (HSE) first. We continuously work to uphold a leading HSE culture by adhering to strict industry and international standards.

Safety is our topmost priority

Pakistan Oxygen aims to improve the quality of its products and services constantly, while maintaining the highest standards of safety, health, environment and quality. Safety continues to be the topmost priority for us. We aspire to become a world-class organisation, where Health, Safety and Environment (HSE) rules and procedures are clearly defined, understood, respected and complied with.

We have implemented 'Golden rules of safety' which are applicable across the company, including our contractors with the aim of preventing injuries and fatalities and supporting the journey towards a strong safety culture. They underpin critical safety rules and compliance which help to prevent accidents. Each and every employee and contractor working with us must abide by these Golden Rules which are enforced as a condition to work at Pakistan Oxygen.

Hazards and Risk Management

Major Hazards regarding the storage of flammable, toxic, cryogenic materials & processes are reviewed and mitigated at all of our production sites. We have also implemented best industry practices at Pakistan Oxygen, including:



- a. Competency based training and internal licensing of staff working in safety critical roles including commercial vehicle drivers, cylinder fillers and site managers.
- b. Monitoring of unsafe behaviours of commercial vehicle drivers through in-cab cameras, on board computers, drivers briefing and debriefing system.
- c. Installation of telemetry systems at critical installations at customer sites, to ensure the reliability of our supplies and the compliance to applicable international standards.

We believe that our HSE policy and initiatives will help us achieve our vision of zero fatalities and we continue to focus on the HSE aspects of all our decisions, actions and behaviours, ensuring that all necessary training, systems, processes and tools are in place.

We take pride in our safety policies and dedication towards the environment. Understanding the potential safety risks of human injury, damage to environment and other valuable resources, we adopt and advocate safe product handling and work practices. Not only that, we also conduct safety trainings for our customers to enlighten them on safe product handling procedures and hazards of non-compliance with safety regulations. Please contact our Customer Service Centre (+92 21 111 262 725) to book your safety training session.



Our Products and Services

reliable solutions

Pakistan Oxygen Limited provides industrial and medical gases, welding and other hardgoods products, facilities and turnkey services and solutions which are customised to meet the unique needs of our customers. We build on our existing strong customer relationships, by consistently offering real value in the form of safe, reliable and innovative solutions.

Healthcare

Medical gases

Liquid medical Oxygen
Compressed medical Oxygen
Nitrous Oxide
Entonox
Specialty medical gases

Medical equipment

Medical air, vacuum and AGSS Plants
Medical gases alarm systems, high precision flowmeters
Suction injector units, vacuum controllers, oxygen therapy products and high precision flowmeters
Entonox delivery systems, complete with apparatus
Manifolds – semi and fully automatic
Patient bedhead units and ICU beam systems
Operation Theatre (OT) – pendants (fixed and movable)
Fully equipped Modular OT
Nurse call system

Medical engineering services

Consultation, design, installation and service of medical gas pipeline systems (O2, N2O, air, suction etc)
Safety, quality, risk analysis and training on medical gas pipeline systems

Industrial gases

Bulk industrial gases

Liquid Oxygen
Liquid Nitrogen
Liquid Argon
Pipeline and trailer Hydrogen
Liquid Carbon dioxide
Industrial pipelines and associated services

Compressed industrial gases

Compressed Oxygen
Aviation Oxygen
Compressed Nitrogen
Compressed Argon
Compressed air
Compressed Hydrogen
Compressed Carbon dioxide
Dissolved Acetylene

Specialty gases

Helium
High purity gases
Research grade gases
Gaseous chemicals
Calibration mixtures
Argon mixtures
Welding gas mixtures
Sterilization gases
Refrigerants

Welding consumables and hardgoods

Welding consumables

Fortrex E7018
Zodian Universal E6013
Matador47® E6013
Spark E6013
Matador SS (E308 & E308L)
Special welding and filler wires
MIG welding wires

Welding & cutting machines

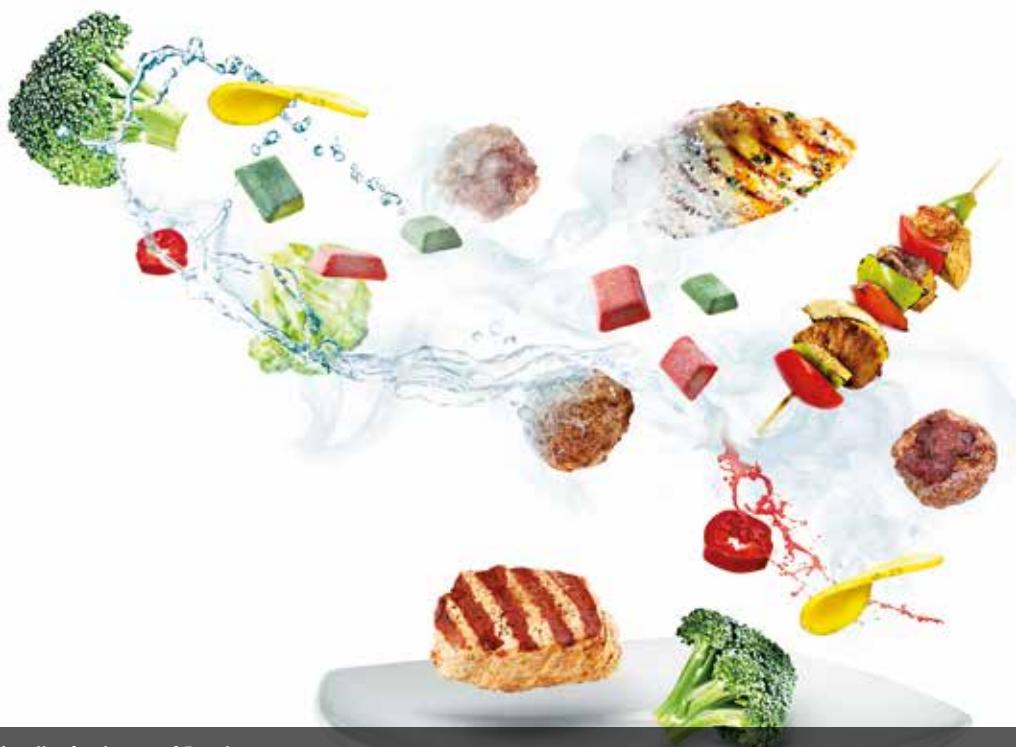
Automatic
Semi – automatic
Manual

Gas & arc equipment

Gas regulators (single & multi-stage)
Cutting & welding torches
Abrasives (cutting & grinding discs)
Electrode holders & welding Cables
Gas control equipment
Safety auto-darkening helmet
Flashback arrestor
Welding and cutting outfit and accessories
Welding safety & Personal Protective Equipment (PPE)

**Innovating the Welding Technology**

We develop innovative solutions tailored to individual needs across the full application spectrum - from joining and cutting through soldering and coating to heat treatment. Our welding gas mixtures and extensive range of welding equipment and consumables for Arc, MIG and TIG welding support our customers to meet their production and efficiency targets.

**Preserving the freshness of Food**

Cryogenic freezing and cooling of food stuffs using liquid nitrogen has been enhancing food processing for many years. It ensures fast freezing and chilling, preservation of flavor, reduces dehydration resulting in a higher yield. Pakistan Oxygen offers food-grade Nitrogen as well as associated equipment to suit product requirements for Fruit, Meat and other food processes.

We also provide food grade Nitrogen for product preservation in Snacks industry along with food grade Carbon dioxide for carbonation in Beverage Industry.

Healthcare Gases and Solutions

Medical Gases

Pakistan Oxygen is the leading supplier of medical gases and associated equipment to the healthcare sector with more than 80 years of dedicated service.

We have a vast range of medical gases delivery options to suit the needs of customers either in liquid form via bulk cryogenic tankers and liquified gas cylinders known as XLs or in compressed cylinders. The cylinders are supplied in high or low pressure and a range of different sizes, dependent on the properties of the gas and the usage requirement.

Our complete gases delivery solution includes associated equipment such as Vacuum Insulated Evaporator (VIE), telemetry system and pump which are maintained by us at the customers' premises. Gases levels monitoring in VIE is done via telemetry system and stock is replenished as soon as it gets below a pre-determined level.

Medical Oxygen

Vital to human life, oxygen is widely used in medical facilities to aid in patient care, for resuscitation and curing, and prevention of hypoxemia and hypoxia. Several other medical conditions require the use of medical oxygen to sustain life including cardiovascular and respiratory arrest, severe haemorrhage, shock and trauma, carbon monoxide poisoning and cyanosis.

Nitrous Oxide

Nitrous oxide is used in surgery and dentistry as an anaesthetic and analgesic agent. It is used:

- In the relief of severe pain, usually in emergency situations, by inhalation with 50% oxygen
- In short-term procedures which inevitably involve pain, such as wound and burn dressing, wound debridement and suturing
- In dental work to provide short-term analgesia for tooth extraction and other brief procedures, administered with 50% oxygen
- Occasionally as an insufflating agent in laparoscopy
- In cryosurgery as a refrigerant



Entonox

Entonox is a pain-relieving gas mixed in the ratio 50:50 nitrous oxide (N₂O) and Oxygen (O₂). The gas is delivered to patients via inhalation by using a pressure regulator and demand valve.

The gas is both highly effective and controllable in its effects with rapid onset and rapid recovery. It is used as

- An analgesic agent in first aid, emergency services, obstetrics, ambulances, nursing services and in medical and dental surgeries
- Pain reliever for short-term pain including acute trauma, dental procedures and other painful procedures such as childbirth, wound and burn dressing, wound debridement and suturing

Specialty medical gases

A range of specialty medical gases including helium, liquid nitrogen, medical air, gas mixtures and high purity gases are part of our portfolio. These gases are used in assisting certain medical procedures, for research and diagnostics, culture preservation and testing purposes.

Compressed medical oxygen standards

Specifications	Standards European Pharmacopeia 1999	Pakistan Oxygen Standard
Oxygen purity	99.5% (min)	99.5% (min)
Moisture	≤ 67 vpm	< 50 vpm
Carbon dioxide	≤ 300 vpm	< 300 vpm
Carbon monoxide	≤ 5 vpm	< 5 vpm
Odour	None	None

Compressed nitrous oxide standards

Specifications	Standards European Pharmacopeia 1999	Pakistan Oxygen Standard
N ₂ O purity	98.0% (min)	98.0% (min)
Moisture	≤ 67 vpm	< 120 vpm
Carbon dioxide	≤ 300 vpm	< 300 vpm
Carbon monoxide	≤ 5 vpm	< 10 vpm
Nitric Oxide	≤ 2 vpm	< 2 vpm

Range of cylinders provided for compressed medical gases

Oxygen

	5 l water capacity	10 l water capacity	47 l water capacity
Gas Capacity in CUM	0.8496	1.699	6.796
Valve Operation	Pin Index	Side and top outlet	Side and top outlet
Cylinder Pressure full (bar)	137	137	137

Nitrous Oxide

Gas Capacity in CUM	0.8496	1.699	6.796
Valve Operation	Pin Index	Wheel type	Wheel type
Cylinder Pressure full (bar)	80	80	80

Air

Gas Capacity in CUM	0.8496	1.699	6.796
Valve Operation	Pin Index	Side and top outlet	Side and top outlet
Cylinder Pressure full (bar)	137	137	137

Entonox® (50% O₂ / 50% N₂O)

Gas Capacity in CUM	0.8496	1.699	6.796
Valve Operation	Pin Index	Pin index	Pin index
Cylinder Pressure full (bar)	137	137	137

Medical equipment

With a vast range of medical equipment, we offer a one stop solution integrating all services including the medical gas supply and the medical equipment range.

To facilitate customers, Pakistan Oxygen also provides after sales service as well as personnel for on-site maintenance deputed at the customers' site. Through our long-term facility and equipment maintenance option, the life of equipment can be enhanced comparatively.

The medical equipment portfolio includes products of our own brand as well as other leading manufacturers' products belonging to all tier segments. The portfolio includes fully equipped Modular Operation Theatre (OT) with the highest standards of quality and service because we understand healthcare and the criticality of quality in this industry.

Medical equipment portfolio

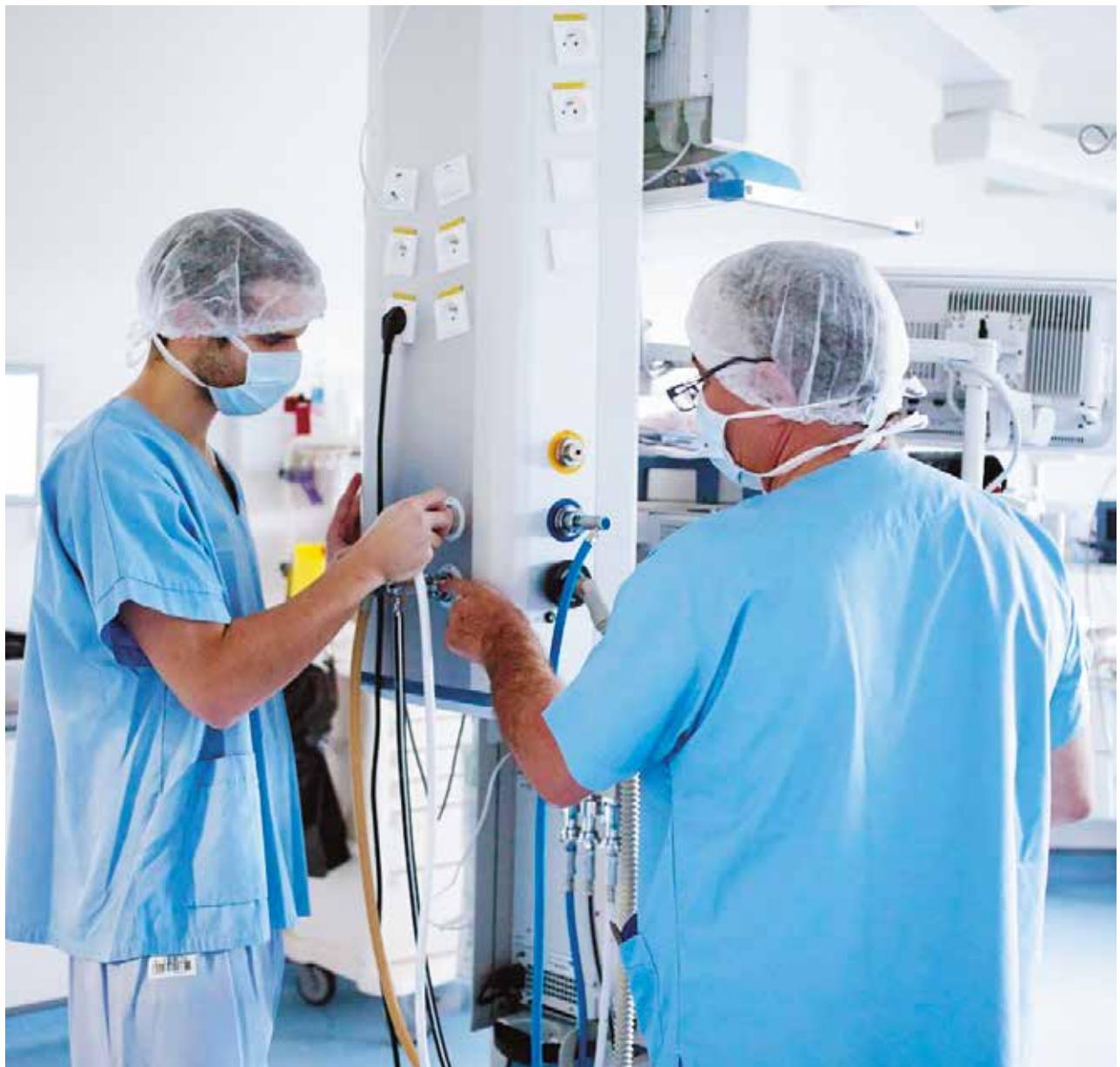
- Medical Air, Vacuum and AGSS Plants
- Medical Gases alarm systems, high precision flowmeters
- Suction injector units, vacuum controllers, oxygen therapy products and high precision flowmeters
- Entonox delivery systems, complete with apparatus
- Manifolds – semi and fully automatic
- Patient bedhead units and ICU beam systems
- Operation Theatre (OT) – pendants (fixed and movable)
- Fully equipped Modular OT
- Nurse call system

Medical Engineering Services

Our medical engineering services in healthcare includes design, installation and maintenance of the medical facility's gas supply system, pipelines as well as the bulk liquid storage vessel called Vacuum Insulated Evaporator (VIE).

Recognizing the use and criticality of medical gases in patient healthcare, our HTM certified trained technical teams coordinates with customers to ensure that all safety and quality standards are complied with, and the best and most reliable solution is provided.

Training and audit programs can be arranged by us to ensure that the gas supply systems installed at hospital's premises are in accordance with safety rules and government regulations. We also conduct workshops for safe handling and administration of medical gases. Additional service requirements requested by customers can be catered for, subject to our service portfolio.



Industrial Gases and Solutions

We provide a range of industrial gases in bulk and compressed form along with associated equipment. Our value-added services include technical expertise and professional support for efficient gas use in your operation systems and processes.

With years of experience in operating technical plants, we offer associated services in plant engineering, consultancy services and safety assessment of your plant and gas system. Recommendations for increasing operational efficiency and ensuring safety compliance as per government regulations are also offered as part of our extended service offering.

Bulk Industrial Gases

When the customer has large consumption requirement, we deliver the gas in bulk quantity and the mode of supply is selected in alignment with the customer. The gas can also be stored in liquid form at the customer location in Vacuum Insulated Evaporator (VIE) vessel. To facilitate our customers, we usually install and maintain the VIE at the customer premises and provide the associated equipment including vaporizers and pumps as per customer requirement as per pre-determined charge.

Product supply measurement is done through flowmeter or gauge, and in most cases via a weigh bridge.

Oxygen

With strong oxidising properties, oxygen is an ideal enrichment gas that increases efficiency of combustion processes and elevates temperatures enhancing process capabilities for cutting, welding, moulding, and refining of end products. For these properties, Bulk Oxygen is widely used to enhance process value chains in industries ranging from steel and metal to ceramic and glass.

Nitrogen

Liquid nitrogen can reach extremely low temperatures of 196 degrees Celsius, which enables its use in cryogenic food freezing to preserves food freshness and quality. Gaseous nitrogen is also widely used in chemicals and pharmaceuticals processes, pigging and purging of pipelines, well stimulation, Enhanced Oil Recovery (EOR), injection and pressure testing, and as a packaging gas due to its inert nature.

Argon

A highly inert gas, Argon is wildly used as a shielding gas for arc welding and as an ambient gas in steel refining procedures. It is also used for filling mixtures for incandescent (filament) lamps and phosphorescent tubes, increasing thermal insulation of multi pane windows and for manufacturing semiconductor chips.

Carbon Dioxide

Carbon Dioxide is used in the beverages industry for carbonation. Among its wide other uses, the gas is also used to blanket chemicals, for fire extinguishing, as a neutralising agent for pH control in water treatment and other applications, and as an inert gas agent for welding processes. Solidified carbon dioxide, more commonly known as 'dry ice' is also widely used as a cooling agent.

Hydrogen

With the highest thermal conductivity of all gases, the hydrogen flame combined with oxygen can reach a temperature of 2800°C, effective for various cutting and welding applications. It also finds its use as an ambient gas in annealing processes to relieve mechanical stresses and in sintering furnaces for powder metallurgy. Hydrogen is also used for hydrogenation of oils to make margarine, ghee and other saturated oil products.

Solution Modes

Delivery via cryogenic tankers

We operate a fleet of specifically designed cryogenic vehicles for bulk gases distribution to our customers' sites. The product is supplied in liquid form and is stored in storage tank at the customer site. Our operations teams work 24/7 to ensure that each delivery reaches the designated location as per given schedule.

Delivery via liquified gas cylinders

Liquified gas cylinders, known as XLs are used as a mode of supply depending on the customer's requirement of consumption as well as feasibility. Liquified Oxygen and Nitrogen are supplied via this delivery option. This is a flexible solution to reach narrow spaces due to its smaller size.

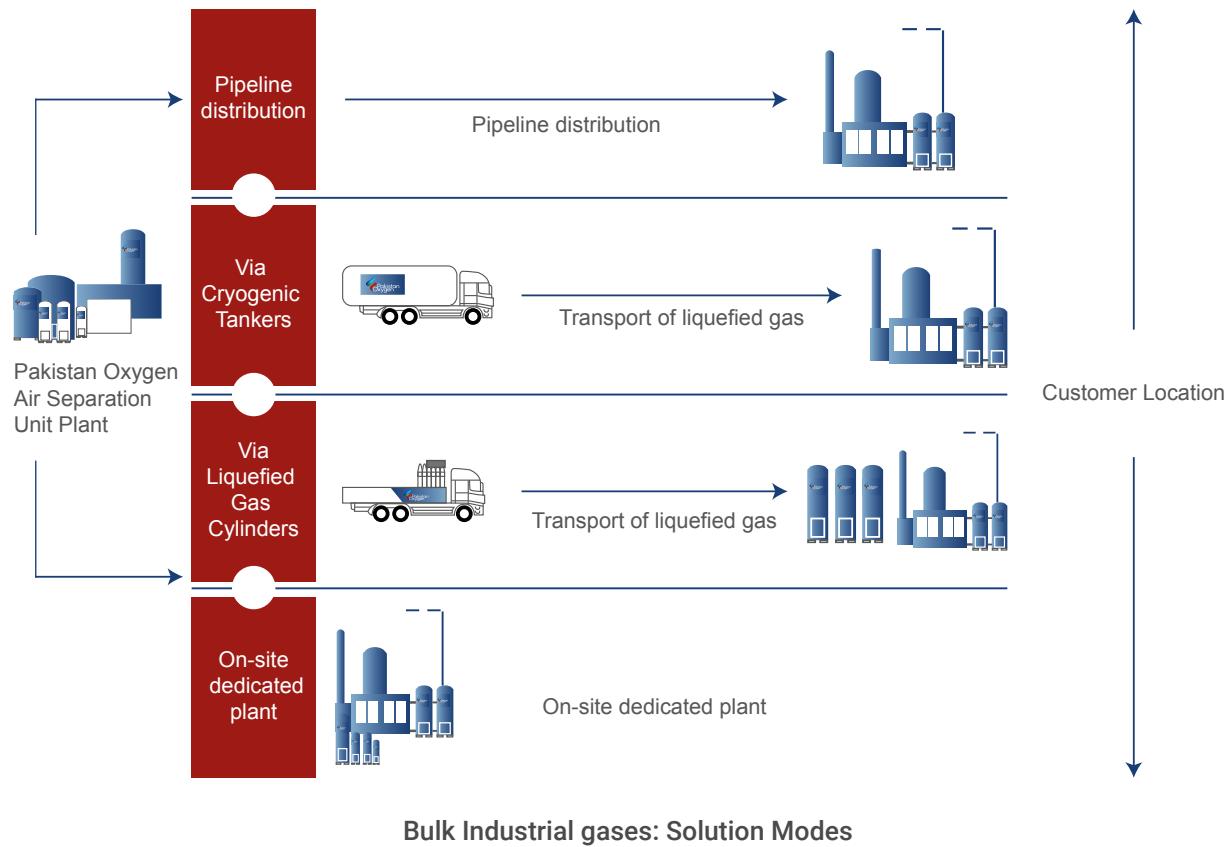
Pipeline distribution

We supply Oxygen, Nitrogen and Hydrogen via pipeline system when the customer has substantial daily gas requirement. Gas is supplied to the customer in vicinity of our plant. This solution can serve individual customers via dedicated pipeline as well as a cluster of industries located within a designated geographical zone through a pipeline network. We have expertise in laying, servicing and maintaining pipeline networks, delivering uninterrupted gas supply.



On-site dedicated plant

When the customer has a very large volumetric demand, a dedicated gas plant is set up at the customer premises to produce the required gas on-site. A backup unit can also be installed to deliver uninterrupted supply. Solutions are customised according to the customer's consumption requirement. Usually a storage tank is also installed and maintained by us to keep buffer stock.



Compressed Industrial Gases

We provide the most extensive range of compressed gases meeting the complete set of requirements. Pakistan Oxygen's highest quality controls ensure quality and safety compliance as per national regulatory requirements. Our cylinders are routinely tested and certified to ensure that we deliver safe packaging to our customers. Additional compliance requirement as per customer need can also be catered to, subject to resource availability.

Industrial gases are widely used to optimise welding processes. Our product portfolio includes Argon mixtures used as shielding gas, oxygen and dissolved acetylene used for cutting and welding applications and Helium used as a high-end leak testing gas. Our compressed gases portfolio supports our customers' welding and fabrication needs. We also provide Certificate of Analysis (COA) as per our quality control practice.

Compressed industrial Gases

- Nitrogen
- Oxygen
- Argon
- Dissolved Acetylene
- Carbon Dioxide
- Hydrogen

Specialty Gases

- High purity gases
- Research grade gases
- Gaseous chemicals
- Calibration mixtures
- Argon mixtures
- Welding gas mixtures
- Sterilization gases
- Refrigerants
- Helium
- Propane
- Carbon Monoxide

Pakistan Oxygen offers a wide range of compressed gases including air gases, as well as other gases as per customer requirement. The cylinders are supplied in high or low pressure and a range of different sizes, depending on the properties of the gas and the usage of the customers. We have an extensive delivery network of cylinders, as well as provide option of filling in customers' own cylinders subject to quality examination.

Specialty Gases

We provide specialty gases including high purity gases as well as welding gas and other mixtures to customers across a wide range of sectors. Our Quality Control Lab and Mixture Filling facility is a unique station dedicated to specialty gases to ensure that gases are mixed in the correct ratio, and quality and safety of product and cylinder is never compromised.



Welding Consumables and Hardgoods

Our welding product portfolio includes a comprehensive range of gas and arc equipment in addition to welding consumables and other accessories, so that we meet entire welding requirement in a convenient manner. Our products portfolio is characterized by optimum quality, performance and safety considerations, and is broad enough to allow you to make cost effective choices for your business. Our portfolio includes products under our own brands together with leading original manufacturer's brand.

Our services also include providing trainings to improve welding efficiency and welder performance as well as create awareness regarding safety precautions.

Welding consumables

Our welding consumables portfolio provides solution for a wide array of welding applications, symbolizing high quality and superior weld performance. Professional welders prefer to use our brands for optimum performance.

Welding consumables portfolio

- Fortrex E7018
- Zodian Universal E6013
- Matador47® E6013
- Spark E6013
- Matador SS (E308 & E308L)
- Special welding and filler wires
- MIG welding wires



Welding machines

Pakistan Oxygen Limited takes forward a legacy of supplying high quality welding products since 1960s, serving the industry with superior welding products and equipment that perform well while caring about welder health and safety.

Our valued customers portfolio ranges from the cement and construction industry to the automobile and manufacturing sectors. We take pride that our products are used for the construction of several iconic buildings and key structures in the country.

Welding machines portfolio

- Automatic
- Semi – automatic
- Manual

Gas and arc equipment

From welding cables to gas control equipment, we ensure that products comply with safety and quality standards. We understand that welding can be a potential health hazard and are able to support our customers in ensuring the protection of welders through high quality, industry standard safety products for head-to-toe protection, and safety for the welder as well as the equipment.

Gas & arc equipment portfolio

- Gas regulators (single & multi-stage)
- Cutting & welding torches
- Abrasives (cutting & grinding discs)
- Electrode holders & welding Cables
- Gas control equipment
- Safety auto-darkening helmet
- Flashback arrestor
- Welding and cutting outfit and accessories
- Welding safety & Personal Protective Equipment (PPE)

24 Hours Customer Service

customer centric approach

Our team of trained and professional staff manages 24-hours customer service and operations at all major industrial locations across the country to support our customers wherever they may be located. Understanding the criticality of our operations specially in healthcare, we respond in the shortest possible time to meet requirements.

Contact our Customer Service Centre (+92 21 111 262 725, customer.service@pakoxygen.com) for more information, complaints and queries.

Business locations

Registered office/head office

Karachi
P.O.Box 4845, West Wharf
Phones +92.21.32313361 (9 lines)
Fax 92.21 32312968

North-western region

Lahore
P.O.Box 205
Shalamar Link Road, Mughalpura
Phones +92.42.36824091 (4 lines)
Fax + 92.42.36817573

Plot No. 705, Sundar Industrial Estate
Phones +92.42.35297244-47 (4 lines)

Mehmood Kot
Adjacent to PARCO
Mid Country Refinery, Mehmood Kot
Qasba Gujrat, Muzaffargarh
Phones +92.66.2290751 & 2290484-85
Fax +92.66.2290752

Faisalabad
Deawoo Road, Near
WASA Work Station.
Phone: +92-41.8812400, 8812500

Nitrous oxide plant

Gas compression facility

ASU plant

Nitrogen plant

Sales depot

Gas compression facility

Taxila
Adjacent to HMC No.2
Phones +92.51.4560701(5 lines) & 4560600
Fax +92.51.4560700

Rawalpindi
2nd Floor, Jahangir Multiplex
Golra Mor, Peshawar Road
Phones +92.51.2315501 (3 lines)
Fax +92.51.2315050

Southern region

Karachi
P.O.Box 4845, West Wharf
Phones +92.21.32313361 (9 lines)
Fax 92.21 32312968

Port Qasim
Plot EZ/I/P-5(SP-1), Eastern Zone
Phones +92.21.34740058 & 34740060
Fax +92.21.34740059

Sukkur
Near Madina Marble Factory,
Plat No. B91, Site Area, Opposite
Labour Colony Sukkur.
Phone: +92-71.5630871

Gas compression facility

Sales office

Gas compression facility
Acetylene plant
Electrode factory
Speciality gases

ASU plant
Hydrogen plant
Carbon dioxide plant
Dry ice plant

Sales depot
Gas compression facility





Address of Head Office

Pakistan Oxygen Limited
(formerly Linde Pakistan Limited)

P.O. Box 4845, Dockyard Road,
West Wharf, Karachi 74000, Pakistan
Phone + 92.21.32313361 (9 lines)
Fax +92.21.32312968

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Website : www.pakoxyygen.com

National Tax Number : 0709930-4
Company Registration Number : 000288