

UIG's versatility changes the industry landscape

Full range supplier of onsite gases and ASUs adds new facilities and projects to its base

As both a supplier and an owner/operator of on-site industrial gas plants, Universal Industrial Gases, Inc. (UIG) is a solutions provider for end-use customers that wish to own their own air separation units (ASUs) with UIG's assistance.

The fast growing, independent company headquartered in Bethlehem, Pennsylvania, has been serving industrial gas customers for over 25 years. UIG is a full-service supplier, specializing in the design and supply of new and refurbished ASUs, upgrades of existing ASUs, supply of storage and vaporization systems, and operation and maintenance of ASUs. UIG also owns and operates several pipeline and liquid supply facilities across the US and is often called upon to provide consulting and other expert services spanning technical, operational, and strategic business support.

UIG has recently developed the capability to supply large-scale, compressed air systems (CAS) in addition to the traditional atmospheric industrial gases. UIG believes this complete range of offerings and versatility is unique within the industry.

UIG has a long and proven record serving top tier, industrial companies principally in the manufacturing sector both as end-users and also by partnering with third party industrial gas companies on mutually successful projects. Its employees are drawn from a wide range of industrial gas and other technical backgrounds. UIG utilizes an extended team that is comprised of



© UIG | UIG's plant for gaseous and liquid products

highly experienced industry veterans and functional experts to support and adjust to ongoing project requirements as needed.

Sam Piazza, the CEO and President of UIG said, "Our goal is to create exceptional value for our customers, value that they aren't able to access elsewhere by bringing an entrepreneurial approach and a lean, very experienced execution organization. UIG provides the ability to tailor our offerings to specific customer needs so they can realize the lowest long-term cost of ownership."

"UIG has successfully broadened its offerings over the years to become a comprehensive equipment and service provider, being able to offer the absolute lowest possible overall cost of ownership for our customers continues to be the benchmark for our success."

Unique

UIG is uniquely both a supplier and also an owner/operator of on-site industrial gas plants (see example on facing page, left). UIG has experience both domestically within the US and internationally with projects completed in several overseas locations. These projects include multiple major facilities for industrial gas companies within the US, pipeline customer supply, "piggyback" merchant liquefiers and also standalone merchant plants (see photo on facing page, far right).

Recent projects include several major facilities for direct, end-use customers that wish to own their own ASUs with UIG's assistance. Last year, UIG completed the start-up of its newest facility in the southern US which includes the supply of gaseous and liquid products and also

including medical grade certified liquid oxygen (pictured on opposite page).

The ASU projects that UIG has been involved with in recent years cover the range from small liquid assist nitrogen plants to large oxygen plants and liquefiers. The projects require a package of capabilities that UIG, as an independent company with unrivalled experience, is uniquely able to bring to fruition. For example, UIG's projects frequently involve unusual engineering aspects, nontypical scope of supply splits and creative project execution and commercial arrangements.

In North America there are now many end-users and industrial gas suppliers operating UIG supplied air separation plants. A Canadian company bought a plant that utilized a refurbished coldbox originally designed to produce oxygen that was then coupled with a new liquefier and re-optimized to produce only liquid nitrogen for the local oil field services industry. Another of UIG's owned facilities required modifications to an oxygen coldbox to also produce pure nitrogen to meet the customer's pipeline requirement for both products. In another instance, UIG provided all the equipment specific project engineering, the cold box and expander, plus installation and start-up services for a nitrogen facility that is now owned and operated by a metal component manufacturer for their own-use.

A recent example of UIG'S consulting experience and upgrade capabilities is the successful refurbishment of a large oxygen plant for a major global minerals company to extend the life of the ASU.

The effort to establish the scope of supply required several years of careful testing and planning, with the project involving several new ASU unit operations and control aspects, plus coldbox surgery for replacement of heat exchangers. Tight scheduling and critical timing were essential to the project success because the plant could only be shut down once every 18 months for a very specific duration in accordance with the mining operation.

Another consulting effort for a different global mining company



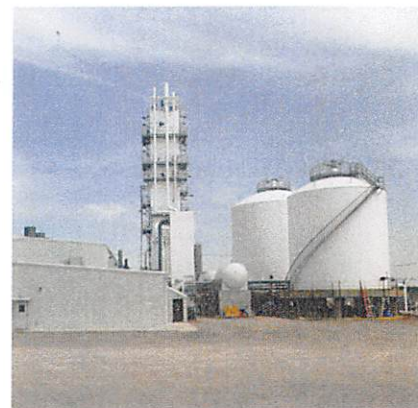
© UIG | UIG-owned and operated on-site for oxygen and nitrogen pipeline supply

“In North America there are now many end-users and industrial gas suppliers operating UIG supplied air separation plants”

involved the detailed analysis of historical gas usage and future consumption to provide an unbiased evaluation of various technical and commercial supply options for the customer's long-range future planning.

This comprehensive study took into account multiple factors such as plant sizing scenarios, capital costs, power requirements, maintenance and operations costs, and commercial options ranging from complete ownership to the traditional “over-the-fence” sale-of-gas concept.

The compressed air systems business, separately established within the company, is focused on delivering value by achieving power and operational cost savings with the supply of sophisticated, modularized air systems, usually with minimal capital outlay required by the customer. These systems are large capacity, highly efficient and typically replace much older less operationally effective installations. There are numerous proven systems now in operation in the US, with several additional sites currently under development.



© UIG | UIG designed and supplied ASU for industrial gas company

Collaboration

UIG's consultancy services include unbiased evaluation of existing supply arrangements, existing plant operations, future expansion alternatives, plant operating/troubleshooting audits, plant upgrades and maintenance activities. UIG has the expertise to help customers evaluate their existing or prospective supply situation and all their industrial gas supply alternatives.

Chief Operating Officer and Commercial Manger, Kevin Baker, summarizes UIG's customer focused approach: “In many cases the right choice between delivered liquid, non-cryogenic (PSA, VPSA, membrane), small cryogenic liquid assist plants, or other types of plants, requires very careful consideration and understanding of all the alternatives.”

“Our goal is to deliver exceptional value and we have been able to do some unique things for our customers. We seek to be a true partner with every one of our customers, not to be another contractor or just a supplier. We seek conversations where we establish meaningful personal relationships, confidentiality and build deep trust.”

“By truly collaborating with our customers at all levels we can work together to unlock solutions for their industrial gas needs in exceptional ways. UIG's customers have consistently trusted UIG to deliver exceptional value by understanding and addressing their industrial gas and compressed air needs.” [EW](#)