
Decades of Deals

The History of Mergers & Acquisitions in the US Industrial Gas Industry

by Peter V. Anania

Since the dawn of time both wealth and power have been transferred by only a few methods. One method is accomplished by passing the wealth or power on to the next generation. Another is accomplished through force, taken by the victor passing from ruler to ruler or nation to nation. A third, more genteel manner is the orderly give and take between two willing parties such as in a merger or acquisition (M&A), where benefits accrue to each party. For each party these benefits can come in a myriad of forms including cash, goods, services, assets and 'territories', as well as noneconomic benefits such as a lessening of risk, employee issues, ability to pursue growth plans or other interests, and more.

This four part series of articles will look at the history of M&A activity in the US Industrial Gas (IG) industry since WWII along with a brief look at future trends in M&A activity. Part II and III of the series, "Industry Shapers", will look at a few companies that have been fairly prolific in their acquisition appetite over the recent years and have become defining entities within the industry. Part IV, "Industry Trends", will look at future trends and our view of the M&A landscape in upcoming years. In compiling this article, we researched the websites of many of the companies mentioned herein, had access to the archives of JR Campbell & Associates, Inc., along with discussions with Buzz Campbell, and used "The History of Industrial Gases," by Ebbe Almquist as our primary reference for historical facts.

1950s

The decade after World War II was an interesting time in the industrial gas industry. The US, having just come off a time of great manufacturing activity for the war effort, turned its energies to the growth of industry in the private sector. The make up of the US industrial gas business of the late '40s and early '50s was much different from what it is today. At that time, there were a handful of large gas producers and a number of small and medium size independent and privately owned gas producers with small, high-pressure oxygen plants for cylinder filling. There were also a few independent gas distributors, which bought all their hardgoods and gases from the few majors. The majors consisted of Union Carbide's (UCC) Linde Division, The Air Reduction Co., Chemetron's National Cylinder Gas, and Air Products. Air Products, at that time, was emerging from a company that was primarily a small oxygen plant design/build to a large gas producer.

During the early 1950s most gas distributors did not own their own cylinders but rented them from the majors. However, in the late '40s a major paradigm shift occurred in the industry when UCC's Linde decided to emphasize the supply of cylinder, bank and bulk oxygen to large customers like steel mills and chemical plants. In order to continue to serve the smaller gas customers Linde and Air Reduction

began to set up local distributors. Capitalizing on a few returning WWII veterans with gas and welding experience and in-house managerial talent, these companies established franchise gas and welding distributors to sell and service gas and hardgoods customers in strategic markets. Chemetron followed suit but on a smaller scale than Linde and Air Reduction. Air Products started to establish its own merchant gas branches and started to buy up some of the regional independent gas producers.

It should be noted that at this time Linde, Air Reduction and Chemetron were among the largest U.S. manufacturers of welding, cutting and medical hardgoods — so their newly formed distribution channels were quite dependent on their suppliers for hardgoods as well as gases.

1960s

The 1960s saw acceleration in the development of the distributor channel, and the emergence of three more major players in the merchant gas business — Air Products, Liquid Carbonic and Big Three. Air Products expanded from its plant design/build business into an on-site builder/owner plant operator with merchant LOX/LIN/LAR "piggybacked" onto its base on-site gas supply capacity. Liquid Carbonic grew from being a leader in the U.S. merchant carbon dioxide business into a major supplier of merchant industrial and medical gases. Big Three expanded in the rapidly growing Gulf Coast market with on-site/pipeline O₂ and N₂, and merchant gases.

At the end of this decade, several independent distributors came to the economic realization that rather than continuing to rent cylinders from their gas supplier, buying their own cylinders was a better route to real creation of wealth. This was an important development on the path to today's merchant gas business structure in the US.

On the acquisition front, Air Reduction saw significant growth during this decade. Among the companies it acquired were Speer Carbon Company, Ferroalloys, and Hofman Laboratory's Cryogenic Equipment Company. In order to create a new image that reflected its new and expanded scope of operations, the company adopted the corporate name of Airco. In 1967, Airco formed a US joint venture with British Oxygen Company (BOC), aligning themselves with one of the very largest international gas companies.

Air Products became a significant player in the on-site and bulk merchant liquid business during the 1960s, further accelerating its growth through the acquisition of independent gas producers and distributors. Part of AP's strategy was to convince the independent producer to shut down its small scale and high cost gas production plant in favor of pumping/vaporizing AP supplied LOX, LIN and LAR into cylinders. This was another important development that led to the distributor supply chain we have in the US today.

This four part series of articles will look at the history of M&A activity in the US Industrial Gas (IG) industry since WWII along with a brief look at future trends in M&A activity.

1970s

By the 1970s UCC's Linde division held the number one gas position in the US with a market share of about 50 percent. Airco was second with a US market share of about 25 percent. Note that in 1970 the major international gas players were Air Liquide (AL) in France, BOC in the UK, Linde AG and Messer Griesheim in Germany, AGA in Sweden, and Nippon Sanso and Iwatani in Japan – and that none had important positions in the US. These companies substantially changed the US market with several watershed acquisitions here during the 1970s. BOC completed a hostile takeover of Airco early in the 1970s, and acquired a few smaller independent regional producers, including Selox (Tennessee) and Alabama Oxygen.

Air Liquide, which was already a leader in the Canadian gas business, started its entry into the US with the acquisition of Gulf Oxygen and American Cryogenics (from Exxon) in 1968. The acquisition of Industrial Air Products of Oregon followed with AL's acquisition of most of Chemetron's gas operations. Shortly thereafter AL bought Big Three, a major development for AL because of Big Three's large Gulf Coast O₂ and N₂ pipeline system, its high market share in the Gulf Coast, and its significant petrochemical, oil and gas developments, and refinery markets. When Air Liquide purchased Big Three, the US Federal Trade Commission (FTC) required Air Liquide to divest five of its US plants together with the related distributor type businesses. The winner of this spin-off was the newly formed independent, Tri-Gas, Inc., based in Dallas, TX.

Meanwhile UGI, a regulated electric and natural gas utility company in the Philadelphia area, decided to get into the non-regulated

industrial, medical and specialty gas business through several acquisitions and formed Amerigas, Inc. Ultimately, Amerigas decided the highly competitive industrial gas business did not fit its regulated utility business and sold most of Amerigas to BOC, including its Gulf Coast merchant CO₂ business.

In the mid 1970s Messer Greishiem (Messer) made its US market entry by purchasing Burdett of Norristown, PA. In the late '70's Burdett of Cleveland, OH sold to AGA AB, leaving two of the major international gas companies without significant gas businesses in the US — Linde AG of Germany and Nippon Sanso of Japan. This situation would change later.

The decade of the 1970s for the industrial gas industry was scarred by the Union Carbide (UCC) accident in Bhopal, India and a subsequent hostile takeover attempt on UCC by GAF. To confront these events and to raise cash, UCC sold off many of its prize businesses such as its Prestone antifreeze and Eveready battery lines. UCC also decided to liquidate all of its hardgoods manufacturing and much of its retail packaged gas and hardgoods distribution business. Much of this business was sold into joint ventures with Linde executives, and via employee stock option plans (ESOPS).

1980s

The emergence of Airgas as a significant player in the US industrial gas business began in the 1980s. In 1982, Peter McCausland and Tom Mason left Messer and purchased Connecticut Oxygen Corporation, a gas and welding distributor. Almost 25 years and 350 acquisitions later, Airgas, Inc., is a NYSE traded company with a revenue run rate of about \$3.0 billion, a market cap of almost \$4.3 billion and excel-

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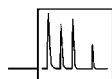
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lent potential from further growth. The Airgas story will be covered in more detail in a future article.

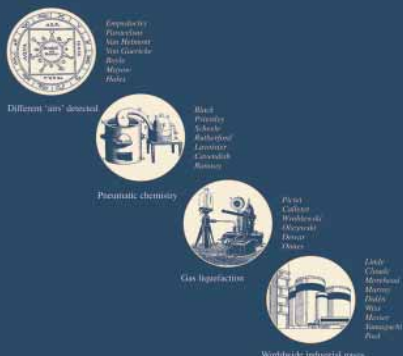
Nippon Sanso had gained its first US foothold with the acquisition of Matheson Specialty Gases when Amerigas decided to exit the industrial gas business in the 1970s. Matheson Specialty Gases had been purchased earlier from GD Searle by a joint venture of Nippon Sanso and Amerigas. Nippon Sanso then purchased Tri-Gas in the mid '80s. Matheson and Tri-Gas were subsequently merged into what is now Matheson Tri-Gas.

1990s

By the 1990s, Linde AG of Germany was the only major international gas player without a significant US presence, though it did own Lotepro, a significant design/builder of ASUs and merchant liquid plants. In the '80s Linde had purchased Hoek Loos of the Netherlands, which owned Atlanta-based Holox (though Linde had no direct involvement in the management of Holox). The major move by Linde into the US came with its purchase of AGA's worldwide gas operations. AGA had a substantial presence in US Midwest, based in Cleveland, OH, and subsequently took control of Holox, which had bought Sunox of Charlotte, NC and Life Gas of Texas — all now part of Linde Gases US.

One of the major US developments during the '90s was Union Carbide's spin off of its Linde division to a newly established NYSE traded company, Praxair, Inc. Once established, Praxair purchased CB&I, mostly for its Liquid Carbonic subsidiary, and its significant US and international merchant CO₂ businesses. This acquisition added significantly to Praxair's South American and Canadian market

History of Industrial Gases



Ebbe Almqvist

History of Industrial Gases

by Ebbe Almqvist

Kluwer Academic/Plenum Publishers

This marvelous book tracks the history of industrial gases from some of the earliest theories of Aristotle, through the discovery of oxygen by Scheele and Priestley in the 1770's, through the discovery of other gases by some of the great scientists over the past five centuries. This book further discusses the current and anticipated developments in related gas products, production, technologies, market uses, and unique applications. Author Ebbe Almqvist pays a great deal of attention to the major players who have built up this industry which produces, distributes, and provides many unique customer services such as the supply of liquid oxygen, liquid hydrogen, and liquid helium to NASA's space shuttles, and keeping ultra-sophisticated medical diagnostic system, MRI, topped off with liquid helium.

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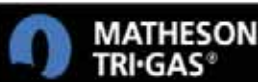
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power, as well as adding to Praxair's US packaged and specialty gases business. At the end of the 1990s Praxair agreed to sell its rights to the Linde name, which the UCC had acquired after WWI, giving Linde AG the opportunity to perfect its Linde brand identification in the US.

TODAY

M&A activity continues into the new millennium and 21st Century challenges are changing the complexion of the industry once again. The most significant of these is the fact that three of the majors have decided to sell most of their US packaged gas business. Air Products and BOC both sold their US packaged gas businesses to Airgas. Air Liquide spun much of its distributor type business out to JVs and to independent operators. AL recently purchased Messer's business units in the US, UK and Germany which precipitated the sale of two more US packaged gas businesses; GTS to a Messer MBO and Constar to Praxair. (See the GTS story "GTS-Combining the Capabilities of Majors with the Characteristics of a Distributor," *CryoGas International*, August /September, 2006.) In addition, five former Messer air plants were sold to Matheson Tri-Gas as part of the AL agreement with the FTC.

As we finish this article, Matheson Tri-Gas has announced the purchase of Linweld in Lincoln, Nebraska. (See *Industry News*, page 4 of this issue.) According to William J. Kroll, Chairman and CEO of Matheson Tri-Gas, Inc. and Executive Director of Taiyo Nippon Sanso Corporation (parent Company of Matheson Tri-Gas, Inc.), "The acquisition will enhance our position in the Midwest (US), further our goal of becoming a "national supplier", and give Linweld's customers access to other specialty gases. Matheson Tri-Gas is a key

player in the industrial gas market in the US, and the strategic fit of these assets with existing business significantly strengthens Matheson Tri-Gas as a competitive supplier."

As of this writing, Linde has approval from the European Union to proceed with that part of its planned acquisition of BOC, and is still awaiting final approval by the FTC for purchase of the US part. (See *Lead News* on page 3.) If approved, the Linde/BOC combination will become the first or second largest worldwide industrial gas company, depending on how all the details are finalized.

Airgas, the largest US distributor of industrial gases, continues to be an aggressive buyer and the trend toward super regional distributors in the US continues. Many questions have yet to be answered. Will potential super regional distributors, like Norco, GTS, NexAir, Valley National Gases and others, step up their acquisition strategy to secure a bigger place in the industry? Will we see distributors buying ASUs to secure and expand supply? These and other topics will be taken up in the following parts of this series. In Part II, we will look more closely at the major industry shapers and how they have evolved through acquisitions. Stay tuned ... □

Peter V. Anania is a Principal of Leaders LLC, www.leaders-llc.com, a mergers and acquisitions advisory firm, which advises industrial gas and cryogenic equipment companies around the world. Peter was recently elected to International Network of Mergers & Acquisitions Partners' Board of Directors and is Chairman of the Membership Committee. He can be reached at +1-207-773-2200 or Anania@Leaders-LLC.com.

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