

GWD

Gases & Welding Distributor

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Forging 21st Century Partnerships

**Growing with the
Bio-Pharm Market**

BYRNESPECIALTYGASES

601 SOUTH ANDOVER STREET • SEATTLE, WASHINGTON USA 98108

206.621.8400

Developing 21st Century Partnerships

Cultivating the Bio-Pharm Market

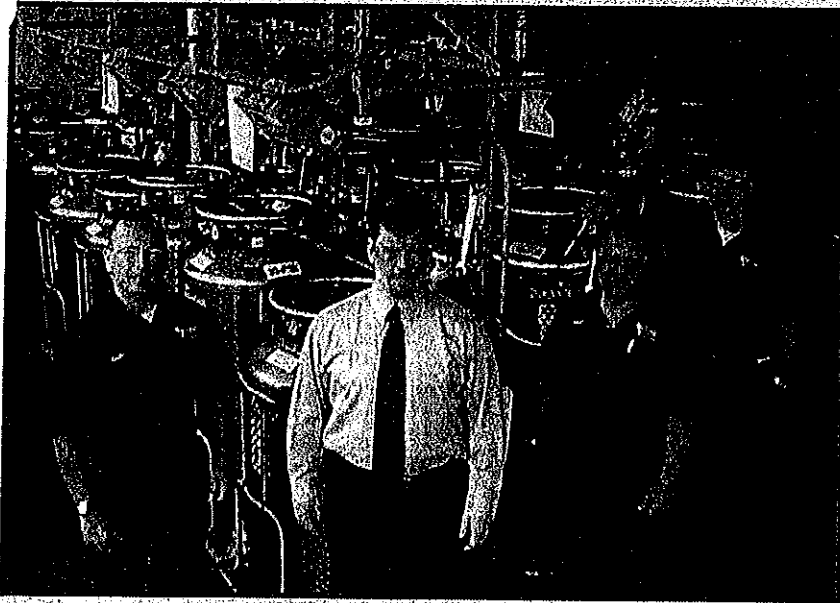


Combining a tight focus with a proactive stance, Byrne Specialty Gases, Seattle, WA, managed to rack up a 15 percent annual growth rate for nearly two decades in the scientific biotechnology and pharmaceuticals market.

B iotechnology and pharmaceuticals probably sound more like science fiction than a solid market for a gas distributor. Yet since its startup in 1984, Byrne Specialty Gases, Seattle, WA, has made a science out of serving the needs of this exciting high tech niche while evolving itself along with the process. "Over the years my own role grew from delivering and selling to finance, strategic planning, and training, while my partner Brent Ferryhough, president and co-owner, took over operations, sales, accounting, and distribution," says CEO and founder Daniel V. Byrne.

Today the firm has 36 employees servicing northern Oregon and Washington from two locations — Seattle, WA, and Portland, OR.

Brent Ferryhough, president (left) and Dan Byrne, CEO.



Liquid cylinders are filled by weight with automatic shutoff to assure accurate filling to a tolerance of ± 0.1 lb. Vacuum insulated piping to scale maximizes efficiency and reduces fill time. (l to r) Gary Emerson, laboratory technician, Mac McElroy operations manager, Bert Mangrubang, production technician, Kelly McElroy, shipping receiving.

There is one major difference with traditional distributorships — the firm does not sell any welding hard-goods. “We have never sold torches, tips, abrasives, or safety equipment,” concedes Byrne. “We have three components to our business — gas supply, cryogenic liquid, and custom engineered gas systems.”

Gas Supply

Gas supply accounts for 65 percent of sales and includes pure, mixed, and cryogenic gases, and cylinder rental. Equipment sales consist of regulators, valves, flowmeters, manifolds, piping systems, cryogenic refrigerators, alarm systems, and gauges.

Byrne sells a range of non-toxic gases including oxygen, nitrogen, CO₂, helium, argon, some calibration mixes, and process gases. “Our bioscience customers deal with living matter and only use a narrow range of gases — those that don’t kill living things,” says Byrne.

To deliver product, Byrne leases

10 trucks from Penske. “We designed these trucks ourselves,” recalls Byrne. “They have a closed box that keeps the cylinders clean and a special strapping system that locks them in place to prevent damage.”

The fleet includes a tractor trailer, a microbulk delivery vehicle, several small trucks for deliveries to clinics, and two service trucks equipped with tools and supplies strictly for installations.

The firm has 600 accounts with no one customer accounting for more than several percent of its business. “We wanted to create a broad base

of repeat order customers so that if one disappears we aren’t knocked off our heels.”

In addition to the biotechnology and pharmaceutical market Byrne sells to analytical laboratories, environmental compliance firms, high tech manufacturing, and healthcare facilities. “Healthcare is growing but bio-pharm is our largest segment,” observes Byrne, “It accounts for 50 percent of our business with the other segments averaging around 15 percent each.”

According to Byrne, the bio-pharm market itself breaks out into discrete segments — each with its own unique needs. “The market encompasses universities and research facilities working on genetic engineering and auto-immune disorders; medical research firms working on



Cryogenic liquid packaging for the bioscience market must meet a



cancer and blood diseases, reproductive technology firms specializing in sperm and embryo banks, and cryo-preservation companies that store heart valves, skin, and bone marrow for transplants."

Byrne targets mid-sized accounts with 50 to 700 employees ranging from \$5,000 to \$10,000 a month in sales. "We do have a few larger accounts bringing in more than \$10,000 a month, but we really like to play in the middle in terms of size since the majors aren't as proficient at servicing these people," observes Byrne.

Genesis

Although the firm's growth has been steady, startup was bumpy. "Because of our size and lack of history some of the major suppliers refused to deal with us so we couldn't obtain popular brands of regulators and cryogenic equipment and we had no name recognition in the marketplace," reveals Byrne.

The firm also began with virtually no order fulfillment infrastructure. "I didn't own a cylinder or a warehouse," says Byrne. "What I had



Byrne Specialty Gases brands its bulk tanks, liquid tankers, and gas packages.

Jennifer Hemingway, customer service rep transfills liquid nitrogen into a small dewar for use in a clinical setting. The liquid nitrogen freezes and kills damaged skin and is used for removal of warts, sun-damaged spots, and pre-cancerous lesions.

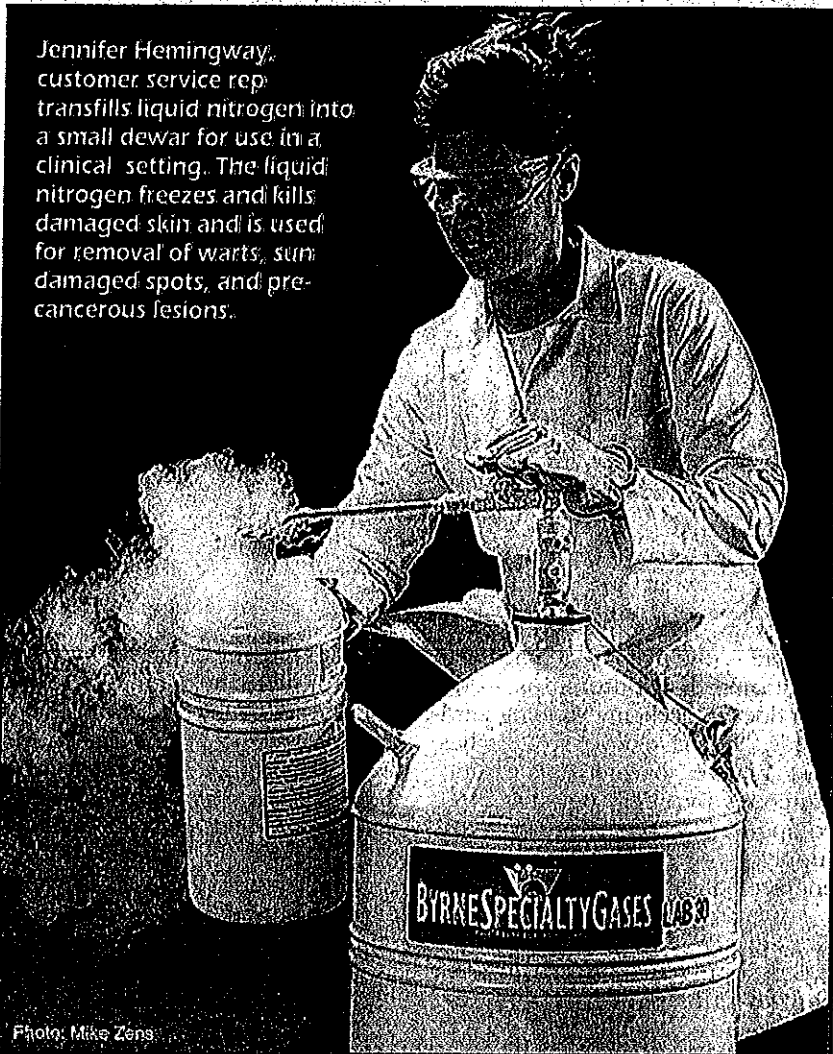


Photo: Mike Zeng

was a one-ton pickup, sales and system design knowledge, a pack of literature, and me."

The firm didn't even begin its own filling operation until three years after its founding. "We gradually ramped up that operation starting with liquid nitrogen cylinders, then adding high pressure nitrogen, then argon, followed by CO₂ and helium. Recently, we added breathing quality air."

Today the firm now has a customized Gow-Mac quality control mixture laboratory for high purity and ultra-high purity gases and the production of biological atmosphere mixes. "Acquiring the Gow-Mac equipment in 1997 helped a lot, it allowed us to check the quality of gases purchased from suppliers, im-

prove response time, and strengthen our confidence in the quality of all gases we fill," notes Byrne.

Byrne entered the bio-pharm market at its inception in the 80's selling first to universities and then to the startups spinning off. "Admittedly we were a bit lucky on timing, but we were also ready — and highly focused," recalls Byrne.

The company hired mechanical contractors for those early installations while Byrne signed up for an accounting class, and called on prospects. Eventually the phone began to ring. "I found prospects plagued with flow, pressure, and contamination problems. I began to understand that full system integration was the key — their system problems were our opportunities."

Packaged Turnkey Solutions

Today customers seeking total turnkey solutions can turn to the firm's engineered systems division. "We design gas handling systems all the way to the point of use," explains Byrne. "Our value proposition stems from creating a total system. When we do that for a customer, we earn the right to its gas business."

The firm assesses supply criticality, safety concerns, purity, flow, and pressure requirements, and determines point of use requirements. "We even developed a portable gas flow meter system to measure actual peak and average flow rates to boost accuracy in assessing gas supply needs."

"One we know what the system requires, we develop a schematic, submit price quotes, assemble the components, and install the system."

Since bioscience customers deal with living matter they only use a narrow range of gases — those that don't kill living things. High purity, however, is a major concern.

Once it's all in place we establish an appropriate delivery schedule."

Byrne's ongoing gas supply management program called "Gastatus" assures customers they will never run low of critical gases. "We check and fill their cylinders from once a month to twice a day depending on the situation. The program assures them they won't have to monitor their supply, call a supplier, or wait for delivery," explains Byrne.

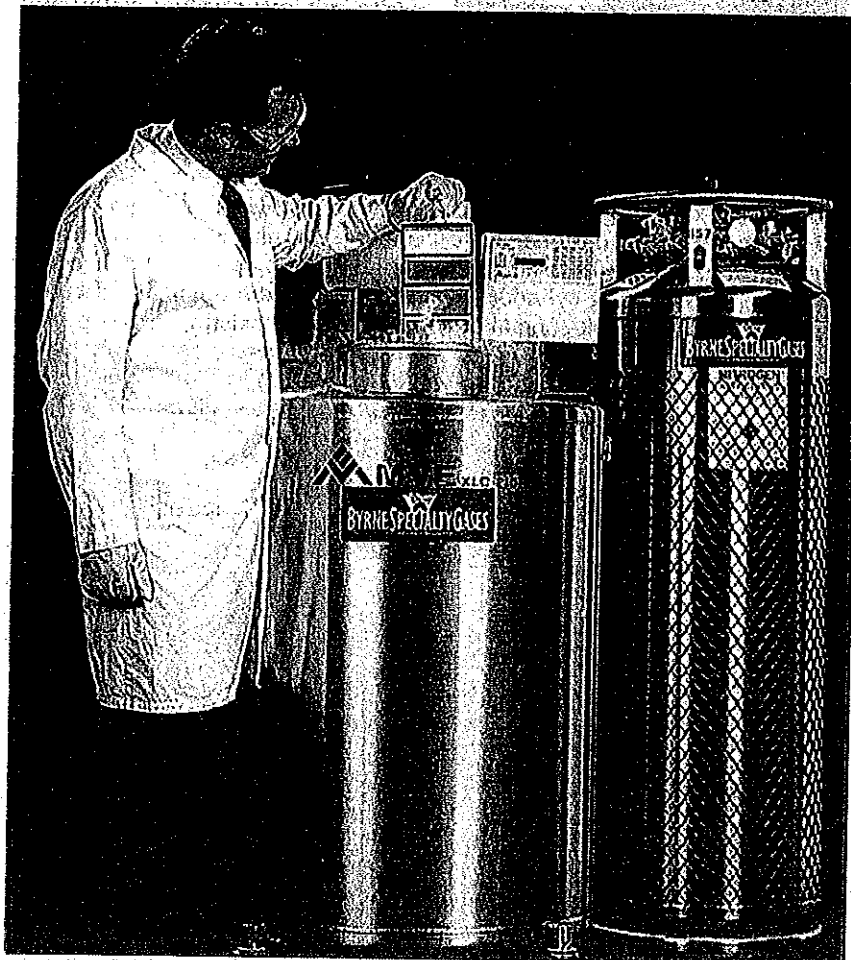
The firm is often contacted by mechanical contractors, building owners, and architects. "The typical en-



gineering firm designs many types of buildings from food processing plants to offices but avoids laboratory systems. They don't want to worry about tubing, control hardware, and installation requirements," asserts Byrne.

Byrne has plenty of expertise on hand. "Four people on our staff have advanced degrees in science and engineering and two technical field service reps have technical training under their belt," observes Byrne.

The engineered systems department developed 10 packaged solutions covering 90 percent of the inquiries. "Our packaged solutions list equipment for control, outlet valves, and other components and include specifications for everything from maximum allowable working pres-



Kelly Davis, technical sales rep, removes a "rack" containing a number of cryovials from an MVE cryogenic refrigerator — a vacuum insulated holding tank partially filled with liquid nitrogen. The cryovials contain biological materials such as cells, embryos, proteins, and sperm stored at -196 C. When thawed, this material will return to life.

Byrne sells a range of non-toxic gases including oxygen, nitrogen, CO₂, helium, argon, some calibration mixes, and process gases.

sures (MAWP) to cleaning standards, along with price quotations. With most inquiries we can select the package that's the closest fit and build on that.

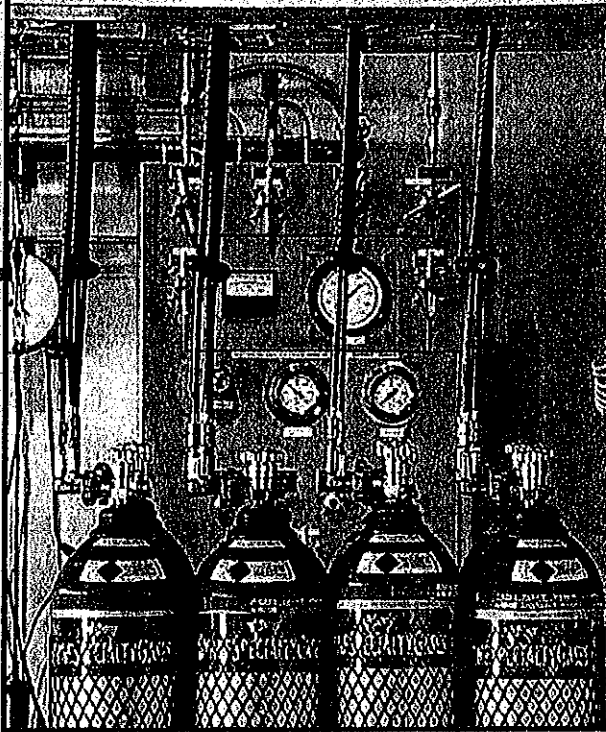
"If the design calls for five incubators and a customer has a potential to grow to 25, we calculate the average consumption rate per incubator per month and size up the system accordingly," explains Byrne.

Incubators are a gas consumer unique to the bio-pharm market. "They look like a refrigerator but are intended to keep materials as warm as body temperature 98.6° F (37° C), and consume CO₂," says Byrne.

Incubators simulate conditions inside the body and are used for growing bacteria. "They must maintain body temperature and gas levels — typically 16 percent oxygen and 4-8 percent CO₂. That means whenever a researcher opens the door to insert or remove a petri dish the unit loses CO₂ and the cells inside start to die. Incubators monitor and restore gas levels. Supplies are critical since the cells represent expensive research data."

Byrne's fleet includes a microbulk delivery vehicle.

ULTRA PURE FILL SYSTEM



Custom Solutions

In addition to modular packaged solutions the company also designs full customized installations. "We centralize the supply and install pipe so we are not dragging cylinders in and out of the lab or risk contamina-

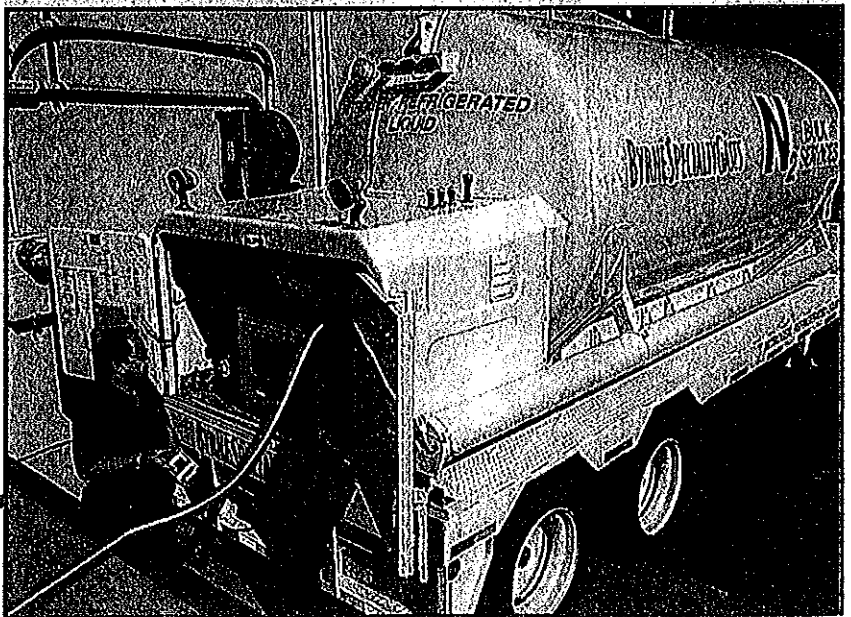
tion in special clean rooms," says Byrne.

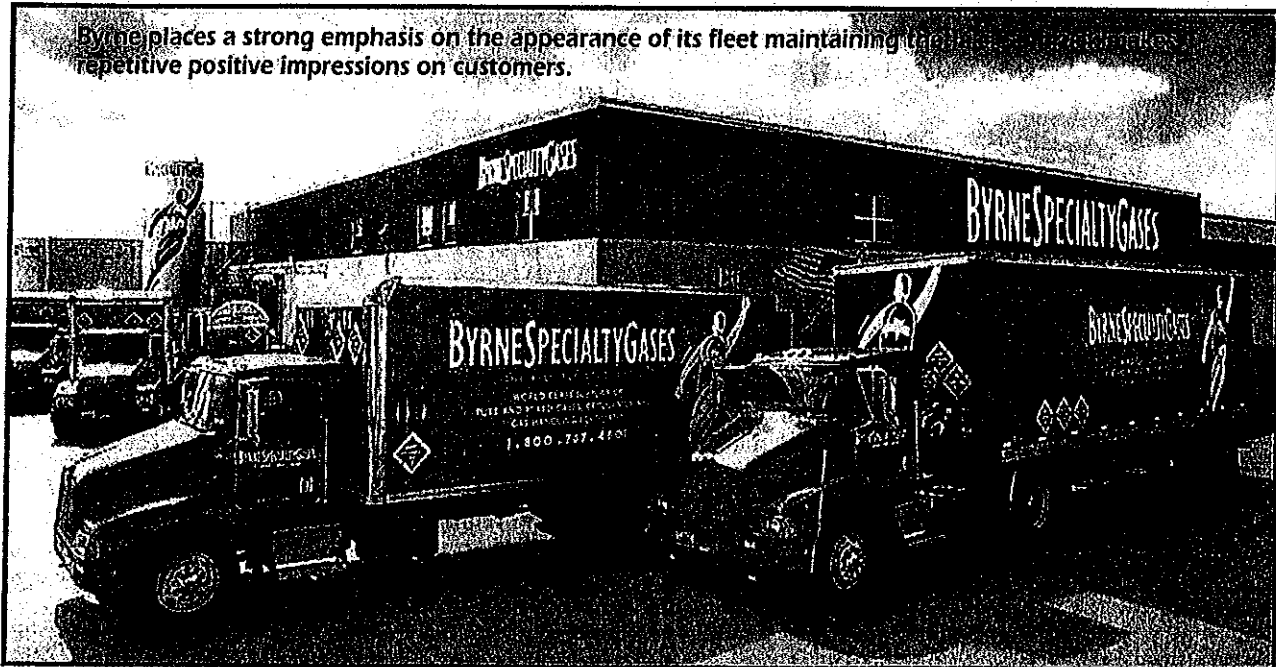
Maximizing floor space is another essential part of the firm's value package. Byrne explains: "Lab floor space costs \$350 a square foot in Seattle. We equip them with point of use regulators set at appropriate pressures for incubators, cryo-biological freezers, and other devices to conserve floor space. Removing a couple of cylinders plus some stored empty cylinders could free up 10 square feet allowing them to install another device."

Floor costs soar from a combination of real estate prices and facility requirements. "Since researchers must attend academic events and seminars they locate the labs where land values are high — generally close to the center of town and near universities. In addition, these facilities require special air handlers, security systems, purified water, and computer systems. Finally the offices themselves must be upscale and comfortable to attract the top talent," notes Byrne.

Early Birds

Byrne involves building architects and the end user as early as possible in the planning process. "Once a facility is up and running it's difficult to displace the existing gas supplier.





Byrne places a strong emphasis on the appearance of its fleet maintaining the repetitive positive impressions on customers.

The switching costs are high and the facility must be shut down, all the cylinders and removed, and the gas system upgraded," says Byrne.

The firm typically sets up banks of cylinders to provide a continuous supply to a centralized gas system. "Along with that we sell them related gas supply equipment such as switchover manifolds and vacuum-insulated piping."

Byrne will also pay special attention to critical devices such as cryogenic refrigeration units. "These contain biological specimens such as blood cells, immune system cells, bone marrow cells, or sperm cells frozen in liquid nitrogen under a strict protocols, stored at -300 F, and later revived. The cost of a system failure for these firms would be off the charts," says Byrne.

For critical applications such as these the firm ensures peace of mind by installing primary, secondary, and even tertiary

supplies hooked to a manifold. Alarms also play an essential role. Byrne recalled one incident that underscored their importance: "A customer had a fitting improperly

brazed by a contractor. The fitting blew off in the middle of the night. The gas flow surged, the supply levels plummeted, and the alarm went off notifying the facility manager and

allowing us to arrive in time—no biological materials were lost."

Responsiveness and The Infinite Difference

Byrne stresses responsiveness as a key strategic element that creates value. "Responsiveness means probing and understanding the customer's needs, defining a plan of action to solve the problem, delivering on the plan, follow up, and communicating to the customer at each step along the way," says Byrne.

Response also means speedy reaction to urgent needs. "When a customer calls with a problem its our opportunity to flip it around—to come in with a red flashing light on the top

Bio-Marketing

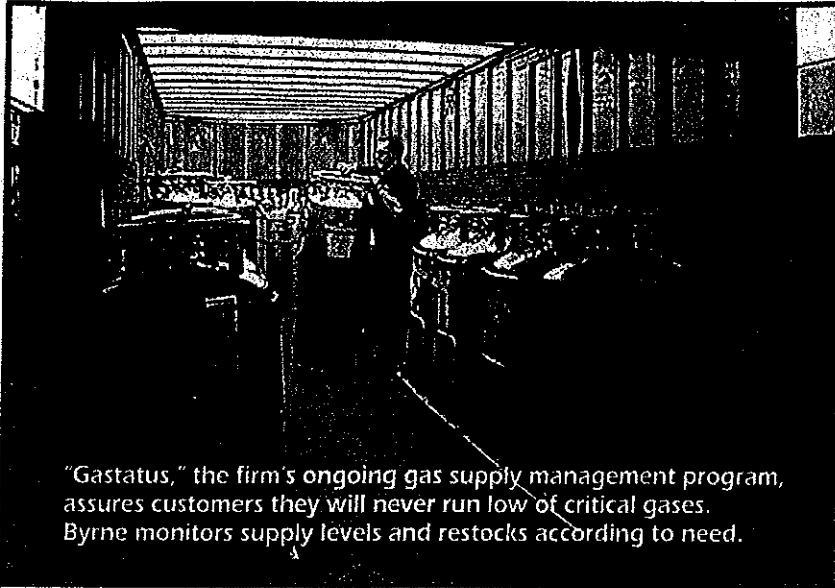
Byrne's marketing efforts includes traditional brochures, literature, web presence, and yellow page advertising. "We also use direct mail for medical and dental clinics but we primarily rely on direct sales calls and a follow up with a letter."

Marketing people glean leads from newspapers, press releases and business journals, and referrals. "Referrals are extremely powerful. If a purchasing agent at a biomedical device manufacturer is downsized, they move to a related company. When that happens they often bring that business to us," says Byrne.

Reps faithfully attend industry functions because each market segment has its own demographics, applications and concerns. "Our reps make a point of attending the breakfasts and monthly meetings of customer associations in biotech, laboratory, and medical markets. This type of networking allows us to tune into their concerns, as well as learn about prospects."

Byrne also keeps a sharp eye out for the gifted researcher hanging up a shingle. "They can stun a distributor. One individual we had cultivated at a university suddenly called us and placed an order for gases. He had a 10,000 ft² facility and 12 scientists arriving to work on monoclonal antibodies. Within two days he had acquired \$2 million in venture capital and 20 employees."

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"Gastatus," the firm's ongoing gas supply management program, assures customers they will never run low of critical gases. Byrne monitors supply levels and restocks according to need.

of the car like the 'Men in Black'."

To maintain a responsive posture and to communicate that dedication to customers Byrne pays strict attention to small details. "We answer the phone by the third ring, our trucks are painted and clean, and every one of our cylinders is branded with our name, a net, and high quality paint. In fact, all our liquid cylinders are polished stainless steel and kept fastidiously clean.

"Our clean room grade package, for example, includes such features as shrink-wrapped valves, foot protection to eliminate contamination, and special labeling," says Byrne.

Drivers must wear clean uniforms, and the facility is kept tidy. "We even have office greeting standards so that visitors are assured of a warm and courteous welcome," adds Byrne. "All of these infinitesimal details add up to an infinite difference."

Effective Hiring

Its attention to detail extends to the staff itself. Byrne wants its value offering delivered by the highest quality staff it can develop.

According to Byrne, maximizing the talent begins with selection. "Over the years we found that people with a mechanical aptitude do well. We test sales applicants for

that as well as IQ. They next go through three layers of interviews. Sales candidates must make a mock presentation to the entire sales force. Finally, we run a thorough reference check, even talking to former co-workers. The process takes weeks but saves us time overall. We have boosted the bell curve of raw talent in our company as a whole."

Training for Response

After hiring, the next step is training. "We want the most knowledgeable people in the industry. That's the only sustainable point of differentiation," says Byrne.

Every new employee goes through

an orientation program that includes basic policies, safety rules, benefit policies, and rules of conduct, and the history of company. "We created a video that follows an order as it moves through the entire operation — from the quotation, through cylinder filling and delivery. It provides them with an overview of the entire operation."

New employees receive a training checklist detailing three days of activities. That's followed by in-depth departmental training for the specifics needed by drivers, field service reps, production, and sales. "For example, a driver/service person spends 6 to 8 weeks in one-on-one training before going 'solo' with customers," says Byrne.

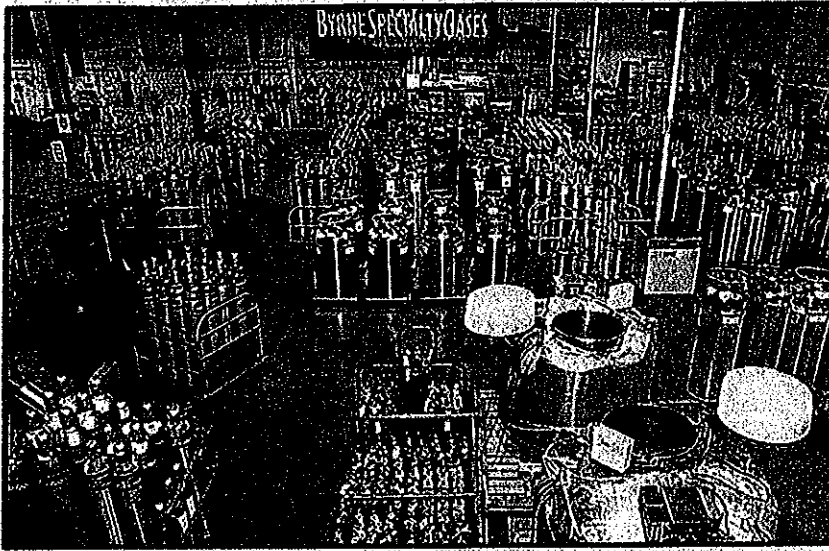
The Sales Mastery Program (SMP) provides new sales reps with a solid foundation. "We start with basic units of measure, financial transactions, purchasing materials, market segmentation, selling skills, and of course gas systems — the cylinders, pressure, flow control, cryogenics, gas grades, and piping," says Byrne.

Initial training concludes with a test and a graduation ceremony but once on board, reps can expect to spend 10 days a year in ongoing training. "We have a detailed training plan for the entire year. Each rep is expected to teach a class in order to reinforce their knowledge. In addition we arrange for outside speakers and vendor sponsored classes on gas chromatography, lasers, and trends in applications."

All training emphasizes the "kernel of value" at the heart of each application.



Cylinders receive a top quality paint job to maintain a clean, high tech image suitable for bioscience research facilities and clinical environments.



Byrne Specialty Gas services the biotechnology and pharmaceuticals market with a 14,000 ft.² facility that includes a fill plant and warehouse.

"We train them to approach customers with the total solution in mind — the supply system, the gas, ongoing gas management, and the value to the customer at the point of use. That means all our questions and examples, even the technical ones, contain a financial component because it is a key part of determining value."

Appearance Becomes Reality

Byrne places a strong emphasis on appearance throughout its organization. "One truck makes 6 million visual impressions a year," notes Byrne. "A clean truck makes repetitive positive impressions. During a recent delivery an individual dashed out the door of a nearby facility, noted our company name, and immediately placed an order. Their former supplier had failed to deliver on time and had repeatedly soiled the floor of the customer's lobby. The customer didn't even ask the price."

"In the manufacturing sector of life sciences we know that our customer's customer is not a patient, it's a venture capitalist. Investors touring a research facility won't draw much comfort from the sight of a quarter million dollar protein analyzer hooked to a rusted cylinder. Our pristine cylinders, on the other hand, make a positive impression and that represents value to these

laboratory customers."

Dandelions

Most of the firm's customers are local and the segment volatile at times. "They are prime acquisition targets," admits Byrne. "When that happens the decision making moves out of town and we can lose the business."

The firm discovered that talented professionals often refused to move. Instead, they started a new business. "When one of our largest customers was acquired their facility became vacant," recalls Byrne. "Ten scientists refused to move and instead launched three new companies eventually renting the same space — each became customers."

Downsizing, like a dandelion, also has the effect of sending out seeds. "Boeing downsized in our area and a several startups sprouted — one firm made high tech crystals, another superconductor wire, and a third magnetic bearings," explains Byrne.

Tight Focus, Relentless Effort

To succeed in the bio-pharm market Byrne believes a distributor must retain its market focus. "When a distributor says 'yes' to too many things it diffuses its focus. There's insufficient networking, application knowledge, and lack of

understanding of the unique needs of each segment. A company has to set boundaries — determine which activities stray from its core business," states Byrne.

Maintaining focus also requires a relentless sales effort. "One key customer took us 10 years to develop," says Byrne. "In this market the value of the work is so high that they are extremely reluctant to change. However, if we relentlessly pursue an account we will eventually acquire it."

"During a sale, we tell customers that it's not a question of 'if' a given machine will fail, but when it will fail. That's why we install alarms and backups. So too, a prospect will eventually become unhappy with its current supplier due to any number of reasons. When that alarm sounds, we're there," declares Byrne.

New Millennium Business

According to Byrne, distributors wondering about bio-pharm prospects in their region should look for three ingredients: large universities, government sponsored research, and a center of excellence, a local concentration of talent. "Whether a distributor can capture that business depends on its focus. It must be willing to become a contributing member of their societies, donate time and money, attend meetings, and participate in fund-raisers."

Most importantly, a distributor must solve its customers' gas and cryogenic problems. "That's what leads to long term partnerships and repeat order business," concludes Byrne. GWD