

WHAT'S IN A NAME ?



A Brief History Of Ariel Compressors

B

ack in the mid-1960s, Ariel founder Jim Buchwald analyzed the gas compression industry and speculated that the development of high-speed engines provided a unique opportunity. He decided to design a compressor for gas gathering unlike any previously developed: driver-rated for the new 1800 rpm engines.



The young Jim Buchwald on his prized Ariel cycle. Jim spent many hours cruising the country roads of northern Ohio and maybe even more working on the engine and mechanics of this fine machine.

A name was required for the project and new company. Buchwald had been a motorcycle enthusiast in his youth, and one of his favorite motorcycles was the Ariel Square Four. In honor of “another fine machine,” Buchwald named the fledgling enterprise Ariel Corporation. (Ariel, a British company, by then defunct, originated in the 19th century as a manufacturer of bicycles and eventually motorcycles.)

When the time came to name the newly designed, three-inch-stroke, high-speed compressor (originally 1800 rpm), designer and company founder Jim Buchwald and his partners realized everyone involved in the company was named either Jim or George (Jim Buchwald, Jim Doane, Jim MacAlexander, Jim Whaley, George Woodman, George Allen and George Leachman). According to Buchwald, it seemed fated that the original design be named the JG. As it turned out, the 1800 rpm engines lagged in development, the JG had to be slowed to 1400 rpm and the stroke extended to three-and-a-half inches to use available drivers. At the time, even this was considered revolutionary and unusually fast.

Around 1972, the young company added a simpler, lower horsepower, more economical version of the JG. Again, the founders considered names and realized that the original three partners all had wives whose names began with M: Maureen Buchwald, Marjorie Doane and Mary Gail Woodman. Consequently, the first addition to the Ariel product line became the JGM.

Market indicators led to the design of a small horsepower, single throw (with a balancing dummy throw) 1800 rpm, three-inch-stroke compressor based on the JGM design. Buchwald said they decided to honor the “sportsman” who bought the first JG, serial number 1: Keith Paul. Ariel added the JGP to its product line. Paul went on to buy many more Ariel compressors. In 1997, Ariel located and purchased Paul’s original Ariel, which was still in service 27 years after its initial installation. It has been cleaned, painted and restored and now graces Ariel’s lobby. The machine is as structurally sound as when it was built and would operate today just as well as it did in 1970.

As often happens when you have a winner, customers keep asking for more models. The late 1970s and early 1980s saw the arrival of two new compressors with rod loads in the 12,000 to 16,000 lb. range. These new compressors used up-rated JG cylinders (until full lines of cylinders could be developed) because of immediate market requirements. One was named the JGW, after Johnny Warren of CSI, our largest packager at the time, who, incidentally, was one of the main people asking for the new design. The other was called the JGR after Robert P. Ramsey, whom Jim Buchwald credits with getting him started in the compressor



The founding partners of Ariel Corporation. From right to left: Jim, Jim and George (Doane, Buchwald and Woodman, respectively).

This rare shot of the first Ariel package during startup in 1969 inadequately foreshadows the phenomenal success of Ariel that was to follow. When this same compressor, serial number 1, was located in 1996, it had changed ownership many times but was still in service earning money for the owners.



business. Back in 1958, Ramsey got Buchwald a job at White-Superior in Springfield, Ohio. On Ramsey's recommendation, Buchwald was put in charge of designing a 33,000 lb. rod load compressor for White-Superior. Variations of this compressor are still manufactured today by Cooper/Superior. Later, in the mid-60s, Ramsey negotiated a contract for Buchwald to design a compressor for Enterprise Engines of Oakland, California: a 600 rpm, 100,000 lb. rod load unit (later up-rated to 720 rpm, 125,000 lb. rod load), the fastest compressor of that size ever designed. The Buchwalds then moved back to Mount Vernon, Ohio, where Ramsey lived and where Ariel was born.

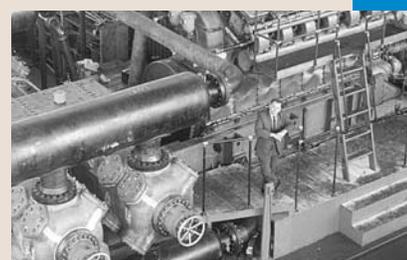
During the early and mid-1980s, it became possible—engine design having finally caught up—to build the originally designed three-inch-stroke, 1800 rpm compressor Buchwald envisioned at Ariel's inception. However, since the JG designation had been used, the new compressor was called the JGA, after John Aldred of Enerflex in Calgary, Alberta, Canada. Aldred recognized a niche for the compressor and brought it to market quickly.

Around the same time, at customer request, Buchwald began designing a 24,000 lb. rod load compressor. He assumed it would be the largest compressor Ariel was likely to build because conventional wisdom maintained the Worthingtons and Coopers of the world had the big horsepower business to themselves. Top management from Worthington descended on Ariel and told Buchwald, in no uncertain terms: Sell your company to us or we will copy your designs and put you out of business.

Buchwald had no interest in selling, so he abruptly quit working on the unfinished 24,000 lb. rod load compressor and began designing a 35,000 lb. rod load machine that would compete with the heart of Worthington's product line. This compressor would eventually become the JGK, named for Buchwald's children, Karen and Kurt. A de-rated version—the JGH—was brought to market quickly, utilizing an existing cylinder line until the full JGK cylinder line could be designed. The JGH was named after General Holt Atherton of Holt Industries, an Ariel packager.



John Aldred of Enerflex (EFX), in Calgary, Alberta, Canada. EFX is one of Ariel's most successful distributors and has been honored with the JGJ (for John), JGA (for Aldred) and the JGE (for Enerflex).



Dwarfed by the machine, Jim Buchwald stands near this 600 rpm, 100,000 lb. rod load compressor in 1966 that helped get him started in the compressor business. The Enterprise design was the fastest compressor of that size ever produced until the advent of the JGB compressor in the late 1990s.



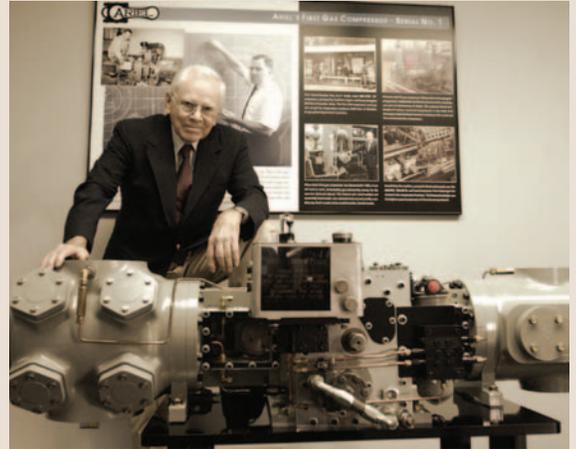
in 1992. Bill Crooks always found a way to get to the heart of the problem and inspired the young Jim Buchwald to do the same.

Soon after the development of the JGH, John Aldred of Enerflex requested a 30,000 lb. rod load unit based on the JGH. This unit became the JGE—for Enerflex. It differs from the JGH in that it has a steel crankshaft and connecting rods. The JGK family has completely dominated the compression industry. Thousands of these industry-standard compressors are currently operating throughout the world.

In the late 1980s, a higher-speed version of the JGR became feasible because of newly available high-speed drivers. Also, newly available materials being used for valve technology provided valves capable of high-speed action. The compressor became the JGJ, named for Jim Buchwald and John Aldred, because their discussions had led to the design.

The 1990s ushered in Ariel's truly large horsepower compressors and have placed the company firmly in the pipeline transmission and storage markets. Design work began in 1993 on a group of compressors in the 55,000 lb. rod load range that were named JGC for Bill Crooks. He was the chief engineer of engine development at Cooper-Bessemer in 1954 when a young engineer named Jim Buchwald started working there. Buchwald says he learned a distinctly useful method of thinking and problem solving from Bill Crooks, "a way of getting to the heart of the problem, cutting through the extraneous technical complications and finding the most workable solution." Buchwald was delighted to have the opportunity, when Ariel built the first JGC, to invite Mr. Crooks to the plant to see it and to thank him for being a mentor.

In the late 1990s, Kurt Buchwald, along with Jim Buchwald's assistance, designed the largest high-speed reciprocating compressor available today. Rated at 10,000 horsepower with rod loads in the 90,000 lb. range, the JGB recognizes the contributions of both Buchwalds. In 2002, Ariel's design team produced an innovative, next-generation compressor, the JGZ and JGU, that is rated in the 7,800 horsepower, 80,000 lb. rod load range. The JGU is named in honor of long-time Ariel customer, Universal Compression.



Ariel founder, Jim Buchwald stands with Ariel's first compressor, now on display in Mount Vernon. When it was located in 1997, it was still hard at work, earning money for its owners after 27 years of service.



Today, Ariel Corporation is managed by Karen Buchwald Wright, CEO and President.



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