110 YEARS OF EXCELLENCE

By: Michael A. Mallwitz

BUSCH PRECISION INC.
MACHINING & MAINTENANCE SERVICES

110 YEARS OF EXCELLENCE

With nearly 40 years of dedication to this company, I am humbled to have the opportunity to share the rich and proud 110-year history of Busch Precision with you.

We have been truly blessed by our caring owners, dedicated associates and extremely loyal customers and vendors.

Gratefully,
Michael A. Mallwitz, *President*

Architecture
Throughout the Years

162 South Ferry Street - Historic 3rd Ward

185 South Barclay Street - Historic 3rd Ward

6060 West Douglas Avenue - NE Milwaukee

8200 North Faulkner Road - NE Milwaukee

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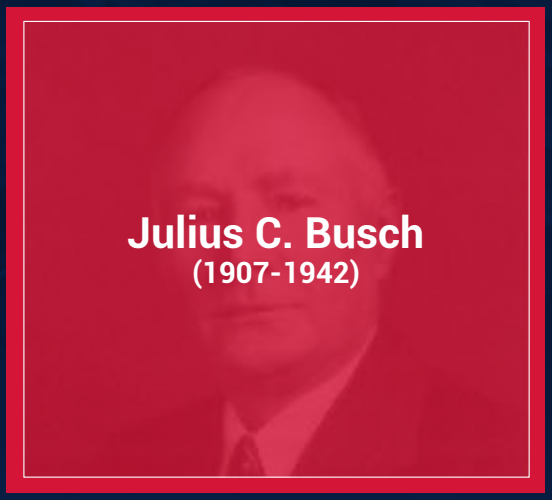


Julius C. Busch
(1907-1942)

THE INNOVATOR:
The beginning of an era

Julius Busch realized an immigrant's dream by becoming a United States' citizen. This opportunity allowed him to open a machine shop in the German manufacturing section of Milwaukee. He worked in collaboration with other German American entrepreneurs in order to achieve success. His 35 years of hard work made the J.C. Busch Company a vital part of Milwaukee's reputation for machining excellence.

The J.C. Busch Company was the culmination of a young German immigrant's dreams and hard work. Julius Busch was born in 1873. Several years later, his family moved to Milwaukee, WI. In 1879, the family was granted citizenship.

Many German immigrants came to Milwaukee with purpose, skills, determination, and a strong desire to provide a better life for their families. They built houses and planted gardens. They worked, shared trade services, and supplied products. Tanning was one of early Milwaukee's three major industries. It provided employment for many—especially Germans—who knew the trade from "home". Meat packers sold animal hides to tan, while farmers brought grain to be milled into flour and barley for malting; thus the evolution of the three major German-owned industries: tanning, milling, and brewing.

Due to the immigration, Milwaukee was a major manufacturing frontier, as well as the most "German" city in America during the 1880s and 1890s. The city was blessed with many talented industrialist visionaries. They would develop many new machinery ideas that would ultimately create efficiencies in time and labor. This period was clearly marked by the end of the Industrial Revolution. Only the Wright Brothers' airplane in 1903 and Henry Ford's Model-T automobile in 1908 were key inventions that occurred following the Industrial Revolution.

Casting Being Lifted with a Busch Crane at a Foundry

After graduating from high school, Julius Busch went to work for several Milwaukee companies to develop his considerable machining skills. These experiences led to his achievement of becoming a Master Machinist.

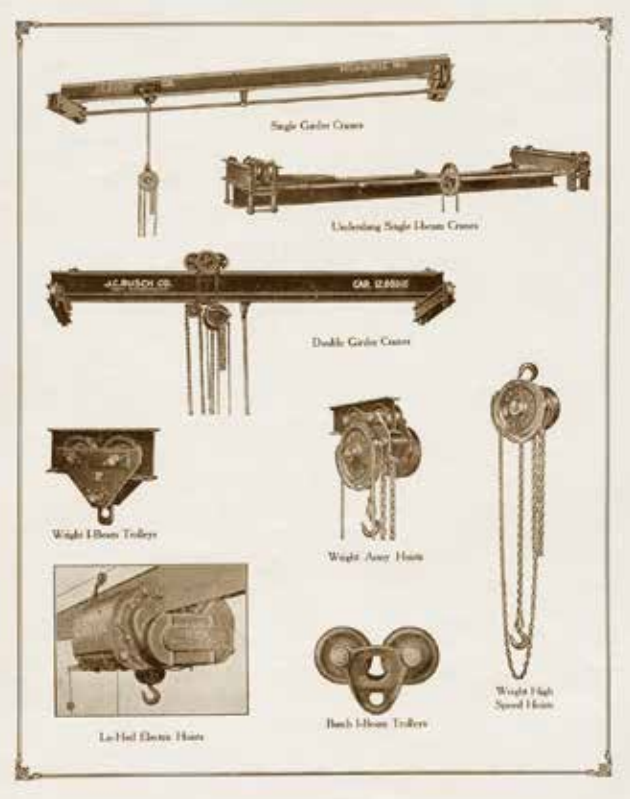
In 1907, Julius C. Busch founded the firm bearing his name in order to offer machine shop services. The facility was located at 162 South Ferry Street in Walker's Point (Milwaukee's early industrial center), now known as the Historic Third Ward. The machinery was belt driven from a coal-fired, steam-powered engine. A key component to the initial success of the company was highly-skilled machining. Equally important was the design, manufacture and sale of precision equipment. The major items were precision, tight tolerance "Milwaukee" surface plates, straight edges and angle plates. Many of these original items are still sold today.

Julius developed close working relationships with pioneer industrialists like Alonzo Pauling, Henry Harnischfeger, Ed Allis, Ole Evinrude, and candy-maker George Ziegler. He enjoyed an especially close friendship with Evinrude, renting him space in his shop where Evinrude designed and developed the original outboard marine engine. Busch assisted Evinrude with the manufacturing of parts, assembly, and promotion of this wonderful invention. In fact, Busch bought one of the first ten motors for himself. Julius, his wife Minnie, and son Clarence enjoyed many boat rides from Pewaukee Lake up to their Clam Lake Summer home in the northern end of Wisconsin.


Evinrude Outboard Motor

Busch recalls (in an excerpt from the *Old Fellows* magazine): "I went around town telling everyone I saw about Ole's motor. I took orders for Ole. I trusted him. He never forgot me. I'll never forget him."

In 1910, there was a shortage of skilled labor, so J.C. Busch Company became one of the first companies to participate in a State-Sponsored Apprenticeship Program. That year was also marked by a major political change; Socialism began in Milwaukee. It made Milwaukee not only the first, but also the most enduring Socialist city in the country. By 1913, a new progressive income tax was implemented that taxed the wealthy at a higher rate than those of more modest income. This had an adverse effect on the entrepreneurs. Consequently, the J.C. Busch Company became a corporation on December 22, 1913. The original Board of Directors/ Shareholders were Herman Freutzel (President), Julius Busch (Vice President/Treasurer) and Chas Dowdy (Secretary). World War I began shortly after this incorporation was completed. From 1914 to 1918, the J.C. Busch Company was a major contributor to the U.S. Government's war effort. In 1915, the company developed and began marketing the Milwaukee Sprue Cutter to assist foundries in cleaning up their castings.



On January 11, 1922, after completing his Army Tour of Duty in France, future Owner/President Arthur Moerschel joined the J.C. Busch Company as Bookkeeper, Engineer and Secretary for the Board of Directors. Moerschel's engineering background proved to be a real asset in the improvement, expansion and increased sales of the precision equipment line of products. This expertise also led to the development of a complete line of J.C. Busch cranes and hoists. In 1925, Julius' son Clarence was made a Board of Directors member.

Julius Busch viewed Clarence as his heir apparent. When the offer to succeed his father as President in 1933 was made, Clarence unfortunately had no interest in being his successor. As a result, J.C. Busch left the Board of Directors on June 3, 1933. He remained the company President until 1942. J.C. Busch sold Art Moerschel the company that featured his name. Although this arrangement wasn't his first choice, J.C. Busch felt he transitioned the company to a man who would continue to run the company with the same tradition of excellence he established in 1907.

35 Years of Excellence!

Arthur G. Moerschel
(1942-1969)

THE VISIONARY:
An era moves forward

Arthur Moerschel faced the unique situation of replacing the company founder only after Julius Busch was turned down by his son Clarence. Having served under Julius for many years, Arthur realized the passion he had for the business, as well as the strong engineering gift he possessed. This allowed him to seamlessly assume control of the J.C. Busch Company and grow it for (27) years. During his tenure, Moerschel moved the company into a larger facility and modernized many machining operations.

After a twenty year career with the company, Arthur Moerschel began his presidency in 1942. During his tenure, his wife Meta managed important office and banking duties for the next 20 years. Right in the middle of World War II, Moerschel not only had to maintain assisting the U.S. Government with the war effort, but also needed to complete numerous projects he previously engineered.

When the war concluded, Moerschel and his team of engineers immediately began developing and marketing a series of "Busch Machines" to support the industrial community:

- Coil Takeoff and Tilt Machine
- Milk Turner
- Paper Stack Inverter
- Roof Paper Cutter Machine

In addition, Moerschel continued to expand and aggressively market the Precision Equipment line. By the end of 1951, it was evident that Busch's success and limited square footage at the Ferry Street plant would require a new, larger building. In 1952, Moerschel began an intensive search for a larger property in the Cream City District of Walker's Point. He located and purchased land to build a 14,000 square foot Cream City Brick building, located at 185 South Barclay Street. The move into the new facility was completed in 1953. In recent years, it was occupied by Barclay Gallery and Garden Café, an upscale restaurant, that closed down in 2008, but reopened in 2014 as a vibrant, local radio station, 88.9FM.

Moerschel designed, engineered and produced an aluminum stereo plotter table that was used by the military for interpreting aerial photographs during the Korean War.

In spite of the magnitude of the new building prospect, Moerschel kept looking for ways to serve Milwaukee's industrial community. He hired skilled mechanics to repair or rebuild milling machines and metal stamping presses—this was a strategic success! Companies not only needed their machines repaired, but also needed new or repaired machine parts. This greatly increased the volume of machining work.

In 1954, business was so strong that Moerschel realized he needed a trustworthy assistant if the company was going to continue to grow and flourish. Wishing to change his career from a school teacher, Milt Rusch applied to the company's employment ad. According to Rusch, right from the start (June 14, 1954), Moerschel had a positive feeling about working with him. Milt assumed the duties of Bookkeeper, and was entrusted with managing the Precision Equipment line. Freeing up time in these two key areas allowed the newly named Professional Engineer, Art Moerschel, to complete and apply for a patent on a lightweight honeycomb surface plate design on December 14, 1955. His hard work, imagination and patience paid off. On February 18, 1958, the first and only patent in company history was awarded. This was the crowning jewel of Art Moerschel's long and distinguished engineering career.

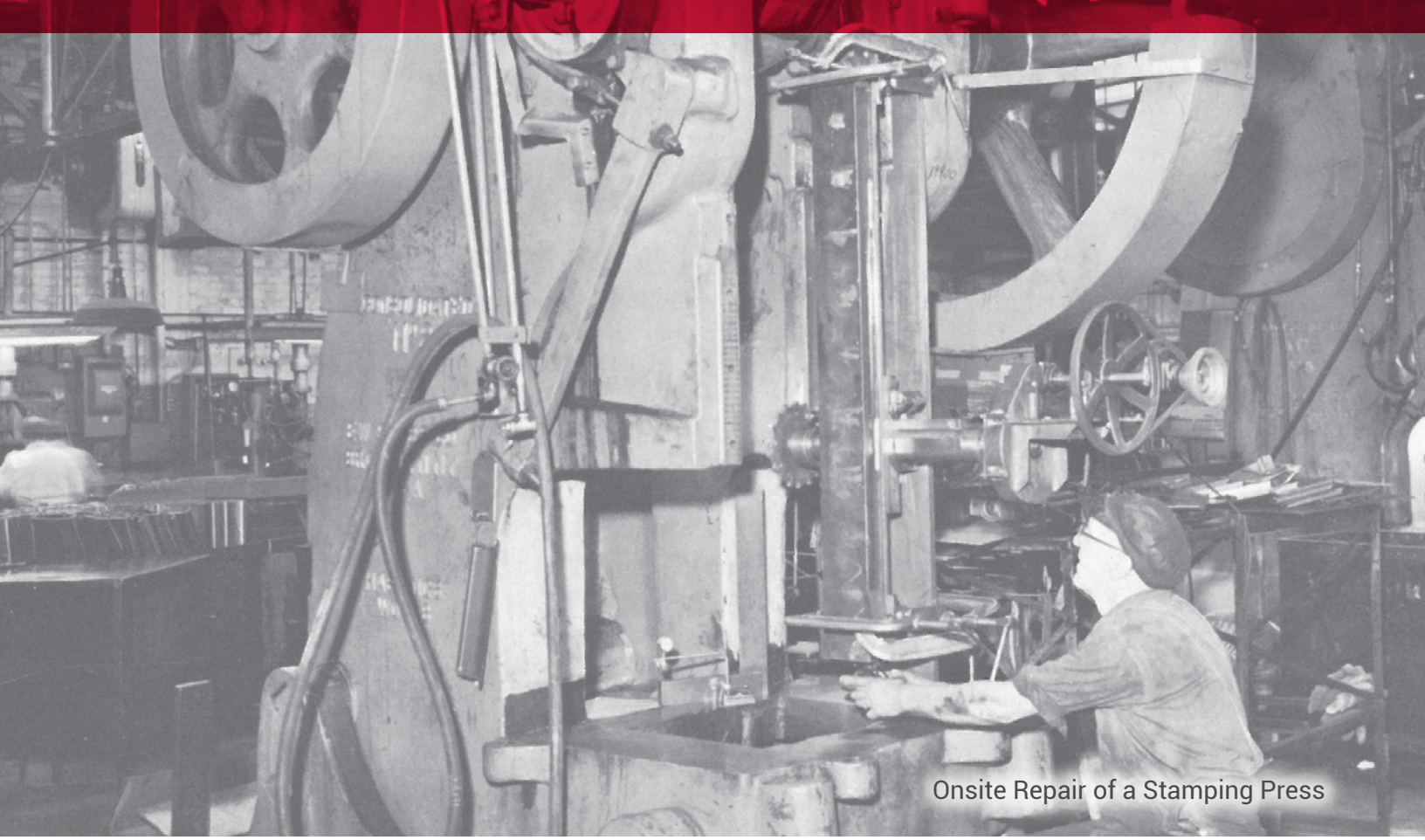
Milt Rusch (on left) and Associate Inspecting a Master Square

Three of the key shop floor hires of Moerschel's tenure were Art Sharp, Art Wilhelm and Robert Wolff. They each made significant contributions to the growth and success of the J.C. Busch Company. Unexpectedly, but equally important, was the hiring of a young Yugoslavian immigrant, Tony Artnak, on January 22, 1957. Tony brought a renewed sense of quality European craftsmanship and would later play a key role as Plant Manager at both the Douglas and Faulkner facilities. The next five years were very successful as the machine repair/rebuilding department continued to grow and prosper. In 1962, Art Moerschel began to realize that after 40 years, it was time to begin positioning the company for the future. He had extensive talks with his son-in-law, George Grove, about joining the company.

George Grove was enrolled at Northwestern University when he was drafted. Grove proudly served in the Navy in World War II. He was eventually assigned to Sipan, Japan as part of the aircraft bombing unit that used atomic bombs to end the war.

After completing his military obligations, Grove finished his senior year at Northwestern University. He earned his B.A. in Business in 1943. More importantly, he met the love of his life and future bride, Audrey Moerschel (Art's daughter), who also earned a B.A. in Business at Northwestern the following year. They were married on May 27, 1944, and George moved to Milwaukee to work as Office Manager at the Square D Company. After 12 years at Square D, he was hired by George Downing (owner of Downing Box Company). Ultimately, he became Downing's right-hand man learning important leadership skills. His writing skills proved invaluable in crafting key business letters and promotional deliverables. After six wonderful years, this seemed to be the perfect career opportunity for George, but Art Moerschel had other plans. Regular discussions occurred early in 1963 regarding how George could learn from the ground floor up about this very successful 56-year old business from an experienced professional like Art Moerschel. After much soul searching, the excitement of such an immense challenge inspired George Grove to join the J.C. Busch Company on June 10, 1962.

The learning period was incredibly intense for George. Not only did he need to learn about the various products and services the company offered, but he also needed to master the marketing and sales of Precision Equipment.



Onsite Repair of a Stamping Press

Sales Manager, Milt Rusch, offered a kind and supportive hand. Contrast this approach with the very demanding style of Art Moerschel and the foundation of George Grove the leader was molded—a fair, but very demanding leader of not only himself, but other employees of the company. His engaging personality and quest for knowledge served George very well with local customers. His passion to promote and develop the Precision Equipment product line was definitely his key to earning the respect of Art Moerschel, who engineered, developed and marketed these products for over 40 years. George made numerous trips around the country to educate and motivate the company's industrial distributors. He also used his considerable writing and promotional skills to assist Moerschel with a new promotional program called “Checkmates”—a checkerboard layout of the Precision Equipment.

In an effort to solidify the office and accounting operations, Audrey Grove joined the company on October 10, 1964 and oversaw payables and receivables, while Milt Rusch managed the Precision Equipment inventory and assumed the majority of the accounting tasks. This restructuring of duties afforded more time for Art Moerschel to effectively run the company as well as mentor George Grove for the next four years.

Early in 1969, Moerschel became very ill and asked the Board of Directors for a temporary leave of absence, which was granted. Unfortunately, Moerschel's health rapidly declined. As he was nearing death, Art Moerschel summoned George Grove to his bedside and asked him to take over and carry the company forward. Art advised George that the machinery would need to be replaced in order to compete in the modern machine shop marketplace. This emotional plea, along with George's tremendous passion for the business, allowed him, after major discussions with Audrey, to say “yes”. Shortly after Art Moerschel received this peace of mind answer, he passed away in April of 1969. Art Moerschel truly was the man responsible for building a solid foundation and future for the J.C. Busch Company.

47 Years of Excellence!

Audrey E. Grove
(1969-2014)

George H. Grove
(1969-2014)

Barbara S. Grove
(2007-Present)

Michael A. Mallwitz
(1979-Present)

THE PROGRESSIVES:
The era carries on

The J.C. Busch Company began an era of growth and modernization under the passionate leadership of Arthur Moerschel's son-in-law George Grove and his daughter Audrey in 1969. The Groves were astute business people who had a passion for keeping and enhancing the Busch legacy of quality moving for four decades In 2010, George and Audrey's daughter Barbara took over the ownership position. Michael Mallwitz, George's 30-year assistant, became the fourth president in the company's history. Together with Barbara's support, Mallwitz and the Busch leadership team ushered in the Technology Era.

On April 21, 1969, George Grove officially became President and Treasurer, Audrey Grove to Vice President and Secretary, and Milt Rusch was named Assistant Secretary. Taking into account Moerschel's recommendations to modernize the company in order to better serve its customers, two new lathes and a drill press were purchased and installed by June 1969. These purchases clearly established the Grove philosophy of "continuous/ongoing improvement" that was to be the centerpiece for the next 47 years of success at Busch Company.

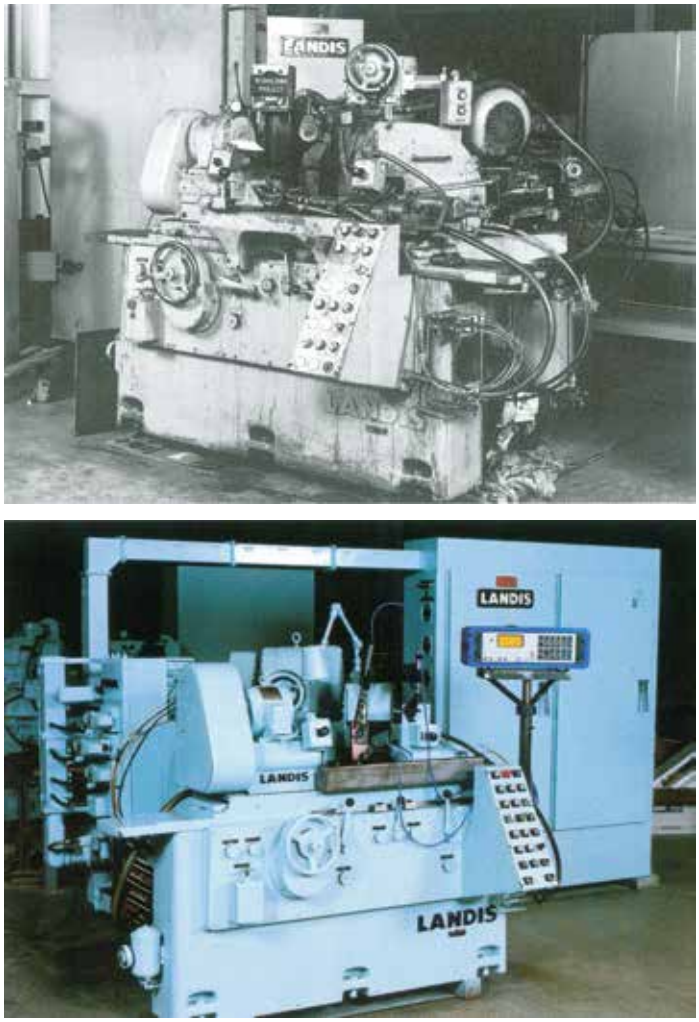
In 1970, a much needed used Hydraulic Planer was purchased and installed to cut the costs of producing Precision Equipment. This move was necessary to contain costs after the introduction of cheaper Japanese competitors. It was also used effectively to remachine stamping press rams and gibs. In spite of having ten accomplished machinists, Grove faced a skilled labor shortage due to a tight labor market.

It was a good news/bad news period from 1970-1973. There was an increased demand for machining, machinery repair and rebuilding services, but the facility was too small for much needed modern machinery (large swing lathe, VTL and tool grinder) and major rebuilding projects. In 1973, a comprehensive search was undertaken throughout Milwaukee for an up and coming industrial park in which to build a new, state-of-the-art facility.

George and Audrey selected a very convenient site on the rapidly growing Northwest side of Milwaukee at 6060 West Douglas Avenue. Coincidentally, Evinrude Motor Company was located one block to the west of the new property. In 1974, construction began on the beautiful, 40,000 square foot facility, complete with overhead cranes. Business remained strong in both 1974 and 1975 due to the major demand for machine shop work. By mid 1975, the move to Douglas Avenue began and by the end of the year, it was complete. George, Audrey and Milt definitely breathed a collective sigh of relief after completing such a major-league project to ensure the company's future.

The new challenges of 1976-1977 included increased machining demands and restructuring of casting, steel, tooling and fastener storage. However, the number one problem George faced was finding skilled machinists and mechanics. This problem was compounded with the retirement of several key long-time machinists. To combat this looming crisis, George re-instituted the apprenticeship program. The Milwaukee Public High Schools and Milwaukee Area Technical College became key partners. To nurture this new group of employees, George appointed Tony Artnak as Plant Manager. Both years produced modest sales growth compared to 1975.

George knew that instilling a total commitment to precision and quality was essential. Tony Artnak had completed a very rigorous apprenticeship in Yugoslavia prior to fleeing the communist regime. Tony was trained to the highest standards, which made this decision a no brainer. To ensure that the increased demand for keyseating was satisfied, a Mitts and Merrill Hydraulic keyseater was ordered in November. Nineteen-seventy



Rebuilt Landis Grinder (Before & After)

eight was definitely a year of promises and challenges. Although business sales volume was up over 25%, the year presented two major issues; 1) the continued shortage of skilled labor and 2) extremely high inflation. This made retaining employees very difficult and the hiring of experienced machinists and mechanics nearly impossible.

The year 1979 was basically a carbon copy of the previous year; sales were up 25%, with continued labor shortages and increasing inflation. One major difference was that George Grove reached the point in the company's history just like Art Moeschel before him, when he felt compelled to hire and mentor an inexperienced assistant to learn the operation from top to bottom. Recent UWM graduate, Mike Mallwitz, began his employment on October 1, 1979. He was immediately thrust into the day-to-day customer service of many of the key local customers. One of his duties included the pickup and delivery of all jobs and quotations. Another

key area of his initial indoctrination was the purchasing function; finding and establishing relationships with companies who could save Busch Precision time and money in these very inflationary times without sacrificing quality. George continued this quest to improve the company by developing shop capabilities literature, a new precision equipment catalog and exploration of which machines would be needed in the next two to three years.

A major recession gripped the United States as 1980 ushered in a new decade. The overall effect of this period was a trend towards longer lead times for accounts receivable, thus a continual examination of all expenditures was required. Fortunately, the demand for large machinery rebuilding grew steadily throughout the year. This growth resulted in a severe space problem. George began investigating a building expansion. The company also purchased a 40" swing TOS engine lathe along with an overhead crane to address material handling deficiencies. In addition, George completed the prototype design of a new machinist straight edge as well as launching a promotional campaign that included new literature.

To combat the space problem, a 10,000 square foot building expansion began in May 1981 and was completed in September. In November, a used slotter was purchased and installed. The recession continued throughout the entire year, making new hires easier to come by.

The recession had a very profound and negative effect in both 1982 and 1983. The Great Lakes Region became known as the “Rush Belt”. Both years were signified by cost cutting measures and a slight decrease in sales from 1981.

After 30 years of full-time service, Milt Rusch decided to semi-retire and only work two to three days a week, while remaining on the Board of Directors. Retaining Milt part time was a vital move since he was able to continue to oversee the office functions, as well as provide training for the sale of Precision Equipment.

The momentum from the previous year continued in 1985. Sales were strong and the number of employees reached 22. Barbara Grove, daughter of George and Audrey, joined the Board of Directors as Assistant Treasurer. To ensure that the company would not become landlocked as a result of future growth, 1.75 acres of land adjacent and north of the existing property was purchased. Storage improvements and tooling expansion capped off a very successful year.

Coming off back-to-back successful years, George was faced with many important decisions in 1986; planning for future space requirements, building a new generation of Busch machinists and mechanics and the modernization of the machine tools. With continual strong demand for machining and machine repair, four apprentices were added. Two new state-of-the-art Harrison engine lathes were purchased and installed early in the year. Sales were aided by an increase in Precision Equipment sales. Nineteen-eighty-six was marked with increased overall sales and the beginning of modern technology at J.C. Busch Company.

To combat the increased demand for large machining, a new Giddings & Lewis boring bar was purchased and installed in the first quarter of 1987. This represented the most expensive machinery purchase to date in the company's history. To solve a growing storage problem due to increased sales in large machining and machine rebuilding projects, a major expenditure was made on storage racks. Sales improved for a fourth consecutive year.

Having completed over 20 years of successful leadership, George and Audrey Grove were challenged with the most important decision in the company's 80-year history. Entering 1988, space concerns coupled with the need to upgrade machinery with new, more expensive replacements were huge challenges facing the company. The easy answer was to sell the company and let someone else worry about it and enjoy retirement. After many sleepless nights, the Groves decided to step up to the table in a major way on behalf of the customers, the employees, and the honor of the company's storied past.

A Keyway Being Cut in a Bullgear

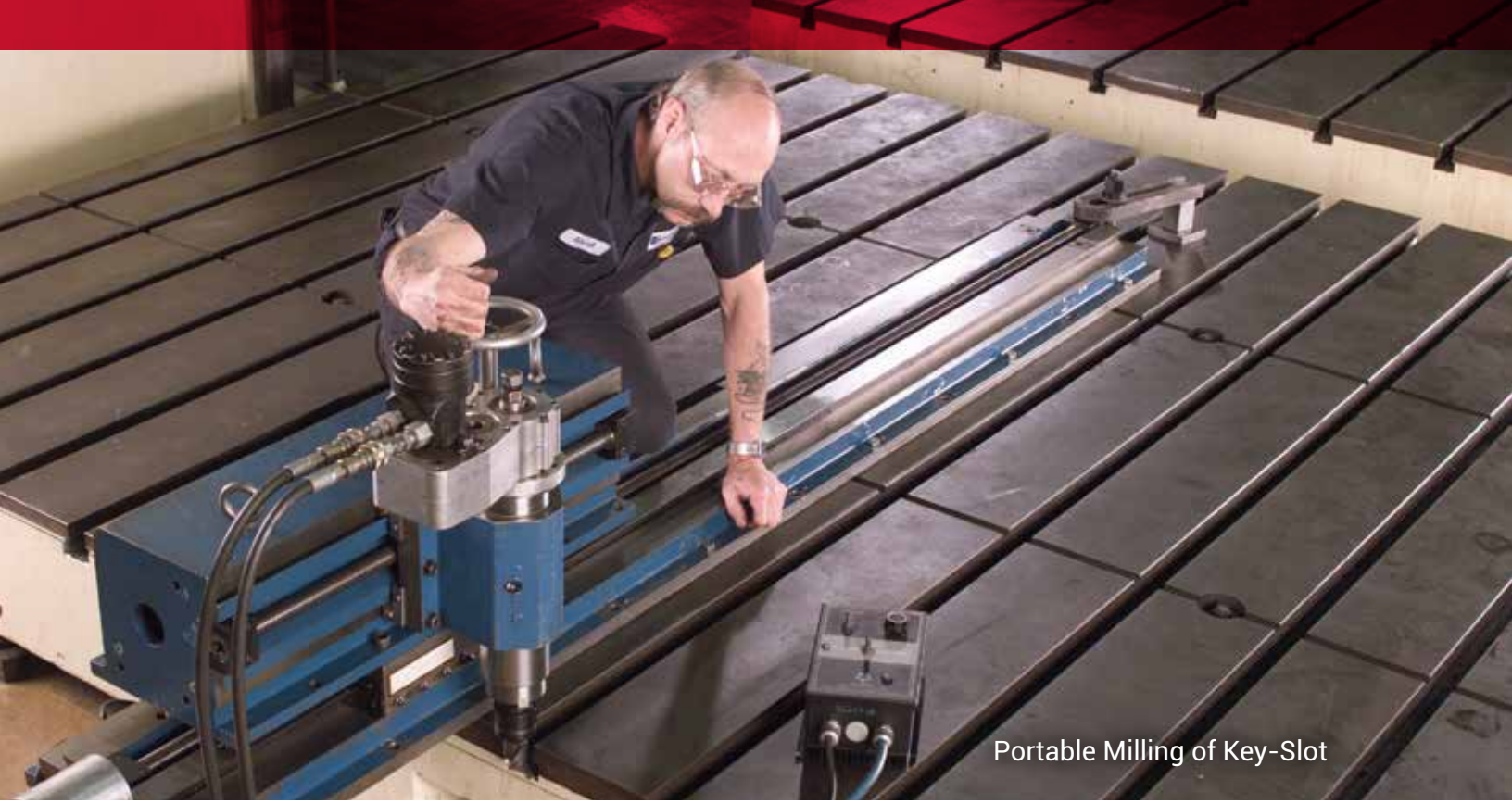
In July, an offer was made and accepted by the Milwaukee Department of City Development for a 7.5 acre site in the new Bradley Woods Business Park on Milwaukee's northwest side. Construction began almost immediately on a 140,000 square foot state-of-the-art facility at 8200 North Faulkner Road. This location was extremely important so the company could continue its Milwaukee heritage.

Meanwhile, 1988 was a very successful year in terms of sales. Five new employees were added, bringing the total to 31, an all-time high. A new Precision Equipment Catalog, which included several new items, was completed and distributed. Demands for machining services grew as well as overall sales. Preparation for moving began, accompanied by a tremendous sense of excitement.

With a September move on the horizon, preparations for the move, along with increased production hours, consumed the first eight months of 1989. Three additional employees were added to the staff. A strong and dedicated effort starting in September by the entire company allowed the move of all machinery and equipment to be completed by mid November. In spite of all the disruption, 1989 was a very successful year. The order of a new Danobat Surface Grinder was clearly the foundation for a bright future. While Douglas Avenue had served the company well, a new decade of challenges required a much larger home.

The decade of the 1990's was ushered in at a sprinter's pace. The fine tuning of the plant was completed in the first quarter. The Douglas Avenue facility was sold to Starline Manufacturing, a high-quality foundry of brass castings. New promotional materials were completed and distributed. An expanded sales effort was pursued aggressively by George and Mike. Seizing a fantastic opportunity to improve Busch's welding capabilities, the welding machinery of Automatic Weld and Machine Company was purchased after its owner decided to retire.

The modernization of the office began with the installation of computers. To better serve one of the major customers,



Portable Milling of Key-Slot

a computer-controlled Schenck Trebel balancing machine was added. Personnel grew to 44, and sales continued to increase all year. It was inherently clear to George that the 1990's would be a decade of major machinery upgrades in order to survive in a new global marketplace. As luck would have it, a mild recession gripped the United States. While sales slowed slightly, 1991 was a very exciting year for Busch's "continuous improvement" policy. The following new/used machinery was purchased, installed, and outfitted with the necessary tooling and accessories:

- 7" Giddings & Lewis Boring Bar with rotary table (rebuilt by the machine repair department)
- 54" Bullard Vertical Turning Lathe
- Fosdick Jig Borer
- Mori Seiki CNC Lathe
- Granite Surface Plate (inspection and quality control)
- Danobat Surface Grinder

On April 25, 1991, the corporate name was changed to Busch Precision, Inc. This was an effort to describe the company's type of work, honor the founder and end the confusion over the first two initials (J and C). The year ended on a strong note with the ordering of a new Kobe Diesel Vertical Turning Lathe.

The delivery and installation of the Kobe Diesel VTL in the first quarter of 1992 got the sales of larger machining off and running. To keep the sales momentum up, the following equipment was purchased and installed:

- Rebuilt 74" Bullard Vertical Turning Lathe
- A used 4" Giddings & Lewis Boring Bar
- New welders and accessories

George completed the redesign and prototype of the Aluminum Straight Edge line (adding lightening holes, which reduced weight considerably). The initial marketing was a major success. The year was fair in terms of total sales compared to the previous several years.

The ongoing recession caused 1993 to parallel the previous year in terms of sales. Major hurdles would exist for the foreseeable future due to increased government regulations and a shortage of skilled labor. George and Audrey stayed true to their goal of building and maintaining a modern, technologically superior facility. The following new/used purchases were proof of their resolve:

- TOS Engine Lathe
- 54" Bullard Vertical Turning Lathe (rebuilt)
- Patterns and aluminum castings to introduce the new, lightweight precision ground Straight Edges (2-16 feet in length)

In anticipation of the delivery of the aluminum straight edge castings, a second Danobat Surface Grinder was purchased and installed in early 1994, this would ensure immediate completion of this important new product. Another new product line was soon to be added; replacement parts of zinc, aluminum, and magnesium die cast machines. After completing the repair of a housing called a gooseneck for a local die caster (which was a first-time project), Mike received a call several days later from another local die caster. They heard about the success Busch had repairing the gooseneck. Likewise, they sent in a gooseneck that was successfully completed. Several weeks later, Mike received a phone call from the head of a sales representative agency in Ohio who had heard throughout the industry that Busch Precision had success repairing goosenecks, and wanted to have his agency represent Busch Precision in the die cast community. After thorough investigation of the industry, it was determined that since World War II, over 50 manufacturers of die cast machines were still in use. There were only two very active suppliers of goosenecks and mating parts for these machines and their quality was very substandard. As a result, a meeting was scheduled with George, Mike and the sales representative agency. A discussion of their possible representation of Busch Precision, as well as providing key suggestions for which components to stock and possible design improvements took place. All the meeting objectives were achieved due to the collective effort of the sales representatives, production manager, engineer, pattern maker, several foundries and the collective marketing/purchasing effort of George and Mike. Busch Precision was now an important resource to die cast companies. To support the manufacture of die cast replacement components, a new Danobat Cylindrical Grinder was purchased and installed in November.

For the year, sales were up over 20%. It appeared the recession had ended.

To build on the momentum generated in 1994, George made 1995 a very aggressive year by purchasing the following new machines:

- Giddings & Lewis Ram 630 Machining Center
- Giddings & Lewis 5" CNC Boring Bar
- Bridgeport EZ Trak Mill
- Danobat Surface Grinder
- Mori Seiki CNC Lathe
- Bridgeport CNC Vertical Machining Center
- 64" Bullard Vertical Turning Lathe (reconditioned)

The expansion of the die cast inventory throughout the year made the sales reps very effective. An important addition to the staff in May was Pete Gies. He brought considerable machining skills to the table to use on the new 5" Giddings & Lewis CNC Boring Bar as well as strong management skills to assist the Plant Manager. Sales for the year finished higher than 1994 and the company had fully embraced CNC Machining Technology.

The following year can best be described as a training year after the massive investment in new, state-of-the-art CNC machinery in 1995. Sales declined slightly for the year.

The company's 90-year anniversary in May 1997 proved to be a very successful presentation to key customers of how the company had modernized and could better serve their needs. The first trade show presence at the Minneapolis Die Cast Exposition gave the new product line a much needed major public exposure. The machining department continued to improve performance on the new CNC machinery. Unfortunately, in the area of sales, a major customer drastically cut their business with Busch Precision, though several new accounts were added to offset this loss in sales. Nevertheless, a large investment was still made in tooling and accessories for the machinery.

The next year opened immediately with the disappointing and unexpected resignation of the Plant Manager. In January 1995 he opened his own machining shop, thus

explaining the previous year's drop in sales of a major customer. Shortly after he departed, five other associates left to join him. This clearly was a hurtful betrayal to George, Audrey, and the entire Busch staff. After the initial shock wore off, George acted quickly in establishing Pete Gies as Production Manager. Pete had an extensive supervisory background. He used 1998 as a year to develop his style of individual growth. The high-quality standards that had eroded at the end of 1997 were quickly restored. A second important player was added to the Busch team on July 31. As a former regular customer whose company closed, Gary Norton immediately improved the customer service presence to every customer who brought in an order to the plant. George made a very strong effort to hire skilled machinists and apprentices to replace the defectors. A new, positive management approach was apparent. Employment reached an all-time high of 50. Increased promotional efforts coupled with stronger direct sales contacts definitely contributed to major sale increases for 1998. This resulted in the purchase of the following items to aid the machine shop and service departments respectively:

- Bonel Vibratory Stress Relieving System
- 4 ft x 8 ft Climax Portable Milling Machine

The closing of the century was marked by the death of Milt Rusch on January 29, 1999. His patience, kindness and most of all, his dedication was a huge loss to his beloved wife Ru,by, as well as any Busch associate, past or present, who knew Milt.

George gave sales a real boost in the first half of the year with stream-lined service bulletins. In order to continue to be an effective modern facility in a global economy, Pete and Mike did intensive market research with their

Material Handling of Bronze Bushing

large component customers to determine how they could be better served. Almost unanimously, their recommendation was to add large diameter CNC Vertical Turning machines. After a year-long investigation, it was determined that Giddings & Lewis still produced the best machine tools to serve Busch customers.

George reviewed and approved the purchase of two new Giddings & Lewis VTCs (84" diameter swing/180" diameter swing) late in 2000. This was truly an impressive way to open the next century of business.

Due to a yearend stock market dip in 2000 and worldwide economic downturn, there were massive layoffs in both manufacturing and the high tech sectors of business —2001 started off slowly. This proved to be minor in comparison to the unbelievable tragedy that resulted from the fall of the Twin Towers, United Flight #175 and the damaged Pentagon on September 11. Not only were many lives needlessly lost, but economically, Busch Precision, like so many companies, was deeply hurt for the remainder of 2001 and all of 2002. The negative ramifications and uncertainty of world terrorism put the business world in a psychological state of gridlock.

Knowing that 2002 was going to be a difficult year, George made a very astute business decision; rather than layoff workers like many other companies were doing, time and money was invested on cross-training machinists on several machines. All necessary repairs on equipment were made in preparation for a 2003 comeback. In November, George promoted Mike Mallwitz to Vice President/General Manager and Gary Norton to Facilities Manager to oversee the day-to-day operation of the company. A cost-cutting program for the end of 2002 and all of 2003 was implemented. Sales fell short of expectations in 2002.

As if George had a crystal ball, 2003 opened with much stronger sales, which continued throughout the year. Cost cutting measures, well-maintained machines, and versatile machinists maximized the year's potential as he had envisioned.

With a strong feeling of optimism, 2004 opened in a very positive manner. This improvement led George to approve the purchase and installation of another 96" Giddings & Lewis CNC Vertical Turning Center. The closing of a local manufacturer's plant allowed Busch Precision to greatly expand its capabilities at an attractive price:

- 6" Giddings & Lewis CNC Boring Bar
- Carton Drill Press
- Harris Freezer
- Assembly base with stands
- Oil tank with heater for assembly projects
- Tap extractor

This plant closing resulted in the outsourcing of a significant volume of machining and assembly work to Busch Precision. To replace an aging fleet of vehicles, George approved the purchase of three new GM vans and three new Chevy pickup trucks to continue timely and quality service for all Busch customers. These events made 2004 a successful year for sales and ongoing improvements.

The 2005 economy was extremely strong. The internet was now a very vital part of the business. Significant time and money was invested into the design and launch of a first-class website. To quickly process the growing number of drawings sent with orders and quotation requests, an OCE Wide Format machine was purchased. To produce professional proposals, a color Konica copier with a scanner for photos was added. Busch Precision truly became part of the information age in 2005. A new large swing Nardini engine lathe was added due to improved sales over 2004.

The strong US economy continued in 2006 at Busch Precision. Sales remained strong throughout the entire year. Due to the increased world demand for energy and the need for infrastructure in third and fourth world countries, large machining requests and long-term partnership opportunities were abundant throughout the year. As they've done so many times in their distinguished careers, George and Audrey approved the purchase of a new generation 145" CNC G&L Vertical Turning Center and a new 5" CNC G&L Horizontal Boring Machine to continue the improvement of Busch Precision to better service customers. President George Grove went to part-time status. Business was strong

'Bob and Brian Go to Work' Radio Show Interview Matt Pettigrew

for the entire year and outpaced 2006. The installation and training completion on the new 145" CNC Giddings & Lewis (G&L) Vertical Turning Center and 5" CNC Giddings & Lewis Horizontal Boring Machine were major accomplishments. The ongoing efforts to modernize the office and shop operations included the purchase, installation, and training of the new E2 software installed on new computer hardware. On October 5 was marked by a very special Open House celebration for customers, key suppliers, and vendors. Clearly, 2007 will be remembered as a year of extreme pride among the associates who were part of a very historical milestone.

The year of 2008 was one of major struggle due to the declining national economy. In an effort to secure large boring and vertical turning work, Busch Precision participated in the Atlanta Cast Expo. Although this effort generated new sales, unfortunately, the year end was disappointing. By December, national job losses were the worst since 1974.

The National Recession worsened through the first three quarters of 2009. The US economy was marked by heavy layoffs and extreme tightening of bank financing. To counteract these major obstacles, a major commitment was made to investigate and fully implement an ISO 9001:2008 Quality Program. In addition to this, Busch Precision upgraded its website by offering users and customers easier navigation and greater visibility. Due to the weak economy, two very important machines, the 4" G&L Boring Bar and 7" G&L Boring Bar were removed from production in Spring and thoroughly rebuilt. After a summer of horrific sales, September began a run of four very positive months. For three months, Busch associates participated in the reconditioning of bearings for the nuclear reactor at Cook County Nuclear Plant in Michigan. At the end of September, Busch was awarded a two-year commitment by a naval supplier to provide machine components for the EMALS program. (EMALS is an aircraft launching system / electrical generator system on-board ships at sea designed to replace the slower steam-driven system).

October 21, 2009 was a red letter day for the company. Hosted by Busch Precision, WI Governor Jim Doyle, Milwaukee Mayor Tom Barrett, Dr. Michael Townsend (President, Milwaukee Area Technical College-Mequon), a Broadstar wind representative, and the Executive Board of the Tool, Die & Machining Association of WI participated in a summit to develop ideas for a better partnership between Government, education, and manufacturing. Vice President, Michael Mallwitz, organized and hosted the event. This meeting was an important foundation for future government and technical college relationships with Busch Precision. To satisfy customer quality requirements and attract additional challenging projects, the purchase and installation of a Zeiss Prismo CMM and climate-controlled room occurred in December. While 2009 was a very disappointing year, it ended on an extremely high note.

In a wave of optimism, 2010 opened with a slew of changes. George Grove became CEO and promoted Mike

Mallwitz to President, Gary Norton to Vice President/ Facilities Manager, and daughter Barbara to Company Treasurer. For the previous 30 years George had been Mike's mentor. Both men wholeheartedly believe in the philosophy of "continuous/ongoing improvement." The key to Mike moving Busch Precision successfully forward was building a cohesive management team, strong customer service driven sales force, and an ever learning and improving work force. In addition, significant networking and maintaining a modern operation were major prerequisites.

On March 22, Busch Precision achieved ISO 9001:2008 certification. Wisconsin Manufacturing Extension Partnership (WMEP) was hired to complete a SWOT survey and marketing analysis in order to determine Busch Precision's strengths, weaknesses, opportunities and threats. Due to the recommendations, two outside salesmen and an inside salesman were hired, and a sales process was developed and implemented. The increased sales allowed and necessitated an expanded cross-training program for many machinists. Six additional machinists were added to the staff in 2010. As part of the recruiting process, Busch Precision was part of a radio remote program with local station WHQG – Bob and Brian Go to Work. As a result of this, Busch was able to attract a machinist who was later hired. Also, a charitable appeal was made to collect many hats and gloves for needy local children. Busch's participation at the Chicago Wind Exposition, rebuilt website and strategic partnership with Nalani Marketing & Sales, and initial results of the salesmen resulted in a return to sales levels that mirrored those of 2008.

The year 2011 was very ambitious for Busch Precision. In the beginning of the year, Busch purchased and installed a Mighty Viper Vertical Machining Center and significant training was completed. This machine was purchased to serve the needs of generator producers, mining, and wind manufacturers. Due to increased business, and more demanding requirements from its customers, Busch Precision hired nine machinists and two mechanics. A significant amount of time and money was invested to ensure this new staff would be fully productive by the end of the year. In Busch's efforts to improve the marketing message, a first time video tour was added to the website. Two Lunch and Learn events added business to the CMM inspection department as well as increased sales in precision tooling.

As a whole, 2011 produced similar results as 2010, but definitely was an important major step for the longterm growth of the company. At the end of the year, George Grove retired as CEO and maintained ownership status only.

Two thousand twelve was an extremely exciting year. Busch Precision was selected to provide very complex machining of critical components for the United States Navy as part of the Electromagnetic Aircraft Launch System (EMALS) project. EMALS was developed for carrier ship launch of aircraft. The plane is catapulted by using a linear motor drive instead of the conventional steam piston drive. This was the most challenging machining project in our history. Through the dedication and strong leadership of VP Gary Norton and Production Managers Curt Lord and Matt Pettigrew plus their use of outside resources, Busch was able to satisfactorily complete this project.

On October 10, 2012, the company held its 105th Anniversary Open House. It was extremely well attended. One week later, the WOW Workforce Development Board presented Busch

Busch Precision's 105th Anniversary Party Attendees

Lunch and Learn Program & Tour

Precision with the 2012 Employer of the Year Award. It certainly was an appropriate honor for the strong effort our team put forth that year. The lessons learned during the EMALs project paid real dividends. Due to improved quality processes implemented by Quality Manager, Doug Patrykus, Busch Precision opened 2013 by passing our ISO audit with the zero non-conformances. Business was steady throughout this year. WMEP assisted the Busch management team in a process improvement program of its manufacturing procedures... providing to be extremely successful.

As an opportunity to educate key customers on ways Busch Precision could be a more useful partners, Busch hosted a Lunch and Learn program/tour. The purpose of the event was to exhibit time and cost savings opportunities when aligning with Busch's machining and maintenance services. Additionally, 2013 was highlighted by a well-attended educational presentation by US Senator Ron Johnson, followed by a plant tour.

To continue their support for the industry and improve member relationships, Busch Precision was well represented in the Tool, Die & Machining Association of Wisconsin (TDMAW). Mike Mallwitz served two one-year terms as TDMAW's President. Lead Service Technician, Mark Groth, assisted with set up at a BotsIQ competition. Additionally, Antonia Stone, Purchasing Manager, served as the initial co-chair of the empoWer committee. It was formed to encourage and empower other ladies in the association to advance their respective careers in manufacturing, as well as become community ambassadors to women. This committee made a very favorable impression at the Wisconsin Manufacturing Exposition held at State Fair Park in West Allis.

Two thousand thirteen was a very effective year for Busch Precision in terms of customer and community exposure. A weak economy kept sales flat. On April 15, 2014, Busch associates celebrated Audrey Grove's 50 years of dedicated service to our customers and associates. Being a humble person, it was a very respectful, but certainly an energizing event. Unfortunately, after a few months, Audrey unexpectedly passed away on June 8. This was a tremendous loss to the Grove family, the Busch team and anyone who knew her. Audrey embodied the meaning of dedicated work, class, dignity and compassion.

Two thousand fourteen proved to be an unbelievably busy, but rewarding year. In order to improve high-quantity machining results, a Prototrak CNC lathe and milling machine were purchased. As part of a Wisconsin/MATC incumbent worker training grant program, Busch Precision hosted and participated in (4) after-hour courses with other area business:

- Blueprint Reading
- Computer Skills
- Customer Service
- Supervision

This was the first program of its kind in State history. It was so successful that Lt. Governor Rebecca Kleefisch, Wisconsin Technical College President, Morna Foy and Wisconsin Secretary of Workforce Development Reggie Newsome all presided at the graduation ceremony held at Busch Precision. This program was the brainchild of Mike Mallwitz and MATC Associate Dean of Workforce Development Sandy McClary. Busch Precision was awarded the Futuremakers Partner Award for 2014 by Wisconsin Technical College President, Morna Foy, at MATC Downtown campus.

Thanks to the positive experience afforded our Accounting Intern, Concordia University presented Busch Precision with

Busch Precision Hosts Successful Worker Training Grant Program

the highly respected Ethical Business and Leadership Award.

On August 1, 2014, Busch Precision purchased the machine tool repair and control retrofit line of business from Maintenance Service Corporation. This important addition to our staff and service offering to Busch customers definitely enhanced 4th quarter sales and energized the team. Ultimately, Busch Precision enhanced its reputation for one-stop, quality machining and top level machinery repair service. Much like the previous year, 2015 was a disappointing year. On March 15th, the amazing visionary George Grove passed away peacefully. George truly put his heart and soul into Busch Precision. The associates, customers and vendors were extensions of his family. George always strived to be better and led the company the same way as President and Owner. Two sayings that he often used to define his philosophy of life were:

"Good, better, best.
Never let it rest.
Until your good is better
and your better is best."

"When you reach for the stars, you will
never come up with a handful of mud."

George clearly watched over Busch Precision the rest of the year "from the large machine shop in the sky" as he so often referenced when one of the associates passed away.

Shortly after George Grove passed, Busch Precision made it a priority to continue actively connecting with its customers, educators and community. On May 6, 2015, Busch organized its first ever Machining and Maintenance Expo. In an effort to educate customers about Busch's capabilities and also, improve their processes, 22 vendors exhibited their products and services, along with hosting nine technical sessions.

With an ongoing priority for "continuous/ongoing improvement" and improve machining performance, a Fives (G&L) Model V1250 Vertical Turning Center was purchased (shown on page 21). To promote this innovative piece of equipment, Busch strategically secured an exhibit space across the aisle from Fives at the Wisconsin Manufacturing Exposition on October 7-8, 2015. The live tooling feature was a major upgrade to Busch's machining efficiency and attracted immense attention from prospective customers. This tradeshow proved to be very effective in creating customer awareness in both machining and maintenance services. Even though there were many positives and immense brand awareness in 2015, unfortunately, the U.S. economy played a role in what was a rather disappointing sales year due to very few major projects.

The leadership team aggressively reviewed all key processes to open 2016. With the implementation of many improved procedures two major orders were awarded in the first quarter. The first project was a critical 600 ton

Fives (G&L) Model V1250 VTC

stamping press used to produce very large lawn mower decks. This required a total rebuilding of most major components that had been damaged during production. Secondly, a large mining bucket machine was sent in for mechanical overhaul, plus a new control retrofit installation. These projects required extremely precise alignment. This factor required the purchase of a Faro Laser Tracker Inspection Tool. It provided the quality assurance required for these projects as well as an overall improvement in the machining/inspection departments of the plant.

Two middle school tours with Greenfield Bilingual School in partnership with Milwaukee Public Schools (MPS) and Milwaukee Area Technical College (MATC). The students and faculty were very impressed by the variety of career possibilities and wide array of industries that are served. Busch Precision also partnered twice with MATC to host their two initial classes of incarcerated machinists (one male/ one female) in order to provide exposure to a skilled machinist path to an advanced machining career. These students truly learned from their mistakes in life and seem destined for success as well as a willingness to make amends for their actions. MATC was so appreciative that they awarded Busch Precision the 2016 Civic Apprenticeship Award. In light of the negative political campaign environment as a back drop, this was a welcomed honor.

As if on cue, the third quarter began with receipt of a roll grinder from a major steel producer. This comprehensive machine overhaul was successfully completed at the end of the 4th quarter. The complexity of the project required the joint effort of the engineers, machining department and machine repair technician team.

One of the most significant area of growth in 2016 was field service. Due to the skill lost by maintenance staff retirees of many customers, Busch Precision assisted by providing comprehensive on-site machinery repair. This was enhanced by the support of the machining department. Numerous parts were repaired or remanufactured in a matter of days, in order to restore the machines to proper operating standards.

Final Thoughts

Busch Precision has been truly blessed for 110 years. The loyalty and trust our customers have placed in us clearly motivated the associates to strive for excellence. In addition, the owners, Julius Busch, Arthur Moerschel, George, Audrey and Barbara Grove all put their hearts and souls into creating a tradition of excellence. This was achieved by wisely investing in quality facilities, state-of-the-art machinery and valuing the associates as their most important assets. Having the honor to be part of this history for 37 years, I can say with total confidence that the next decade will be our most challenging, but most successful in company history. To coin a phrase from President-Elect Donald Trump: "Busch Precision will do its part to make itself and America great again in 2017."

Gratefully,
Michael A. Mallwitz

A SPECIAL THANKS TO OUR
BUSCH PRECISION ASSOCIATES

Barbara S. Grove
Owner
04/01/07

Michael A. Mallwitz
President
10/01/79

Mark A. Wahlen
Machinist
03/26/73

Michael G. Giloy
Machinist
04/11/85

Debra A. Brodesser
Staff Accountant
06/25/85

Robert K. Behnke
Machinist
10/16/89

Robert J. Heinz
Shipping Manager
02/10/97

Matthew L. Pettigrew
Production Manager
02/10/97

Gary T. Norton
V.P. - Facilities Manager
07/31/98

Andrew T. Gerkhardt
Facility Maintenance
05/24/99

A SPECIAL THANKS TO OUR
BUSCH PRECISION ASSOCIATES

Brian J. Nowak
Machinist
10/19/01

Karen L. Mallwitz
Administrative Assistant
06/01/05

Brent C. Allred
Machinist
9/12/05

Anthony M. Ventimiglia
Machinist
04/08/08

Andrew E. Erenyi
Machinist
05/19/08

Dean A. Katzka
Service Technician
01/12/09

Murray (Chip) D. Beckford
Business Development Manager
09/01/10

Jerome C. Williams
Service Technician
05/23/11

Allen T. Persik
Machinist
11/15/11

Douglas J. Patrykus
Quality Manager
02/29/12

Antonia S. Stone
Purchasing/Facilities Manager
03/06/12

Jarrod D. Breitzman
Lead Service Technician
10/08/12

110 YEARS
Maintaining a Tradition of Excellence

Michael W. Parks
Service Technician
01/07/13

Gary L. Metke
Service Manager
05/29/14

John A. Elmergreen
Electrical Engineer
08/01/14

Peter J. Gehrke
Assistant Mechanical Engineer
08/01/14

David J. Marsek
Facility Maintenance
08/01/14

Richard J. Marsek
Business Development Manager
08/01/14

Joseph C. Quartana
Machinist
08/29/14

Scott B. Jordan
Business Development Manager
03/15/15

James R. Bartsch
Controller
10/19/15

Kevin M. Kelly
Machinist
11/09/15

Andrew J. Siemers
Machinist/Programmer
02/29/16

Additional Associates

Curtis J. Lord
Production Manager
10/10/88

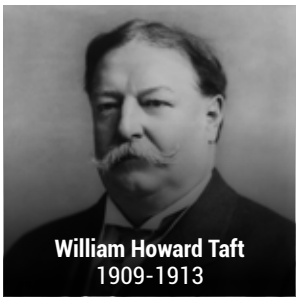
Mark S. Groth
Lead Service Technician
03/10/13

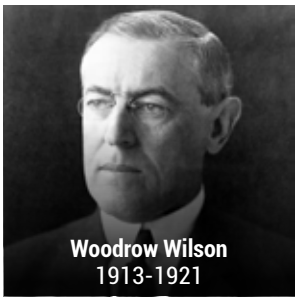
Steven C. Olig
Assistant Electrical Project Engineer
08/01/14

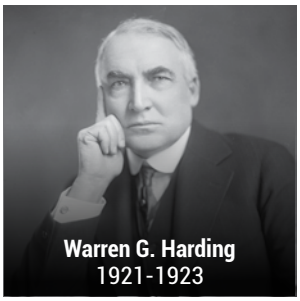
Glenn R. Paringer
Electrical Engineer
08/10/14

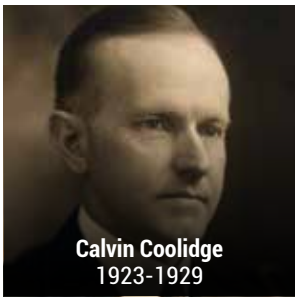
A SPECIAL THANKS TO OUR UNITED STATES PRESIDENTS


Theodore Roosevelt
1901-1909


William Howard Taft
1909-1913

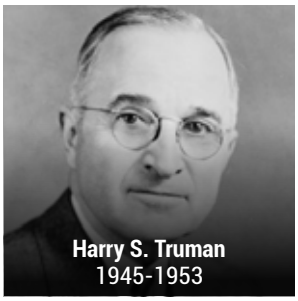

Woodrow Wilson
1913-1921

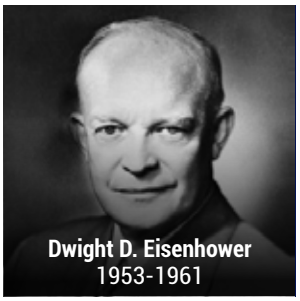

Warren G. Harding
1921-1923


Calvin Coolidge
1923-1929


Herbert Hoover
1929-1933


Franklin D. Roosevelt
1933-1945


Harry S. Truman
1945-1953

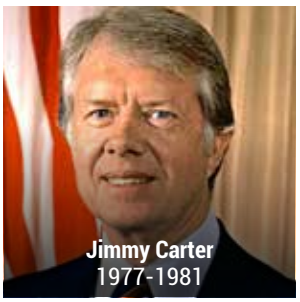

Dwight D. Eisenhower
1953-1961


John F. Kennedy
1961-1963


Lyndon B. Johnson
1963-1969


Richard Nixon
1969-1974


Gerald Ford
1974-1977


Jimmy Carter
1977-1981


Ronald Reagan
1981-1989


George H.W. Bush
1989-1993


Bill Clinton
1993-2001


George W. Bush
2001-2009


Barack Obama
2009-2017


Donald Trump
(President Elect) 2017-

Busch Precision, a proud American company, appreciates the men and women who serve our country to maintain our national freedom. Without them, Busch Precision would not have the opportunity for success. GOD BLESS AMERICA!

WE ARE A PROUD AMERICAN MANUFACTURER

Busch Precision takes great pride in being an American manufacturer for 110 years. United States ingenuity and manufacturing excellence has always been a critical component to Busch's success.

BuschPrecision.com | (414) 362-7300

A Tribute to The Groves

Busch Precision, Inc. truly became a family under the leadership of George, Audrey, and Barb Grove. Each associate and their family members are truly valued. George, Audrey, and Barb showed great appreciation for each associate, customer, and vendor. The class, honesty and humility they exhibited was second to none. Without their vision and commitment, this company's legacy would have ended at 90 years... not celebrating 110 years. It has been an honor and privilege to serve and learn from these talented and caring people.

- Michael A. Mallwitz, *President*

BUSCH PRECISION INC.
MACHINING & MAINTENANCE SERVICES