CP Industries – History

Spanning more than 115 years, CP Industries has been a world leader in innovation in the production of large, seamless pressure vessels. Our Pittsburgh area facility in Christy Park has been the site of continuous improvement, innovation and change as we build and supply the world’s industry with products and services that are reliable, safe and cost effective.

From modest beginnings, our company has grown through rich, unique and tumultuous events to an organization that is resilient, resourceful and has continued to thrive into its third century.

EARLY YEARS

National Tube Works Company, U.S. Seamless Tube Works parent company, made the first seamless steel pressure vessel by cutting 5” tube lap-weld pipe and welding on a top and bottom to form a container.

Fall 1897 – U.S. Seamless Tube Works plant was built on the old Penney Farm in McKeesport, Pennsylvania. The plant, called Christy Park Works, consisted of one work building and one small office building.

Spring 1898 – With 125 employees at the Christy Park, U.S. Seamless Tube Works begins manufacturing seamless steel tubing and small compressed gas cylinders. The first seamless steel pressure vessel was an 8” diameter 50 lb. carbon dioxide cylinder.

May 1898 – Because of the equipment and technology used at the Christy Park Plant for cylinder manufacturing, U.S. Seamless Tube Works produced munitions, 4” and 6” shrapnel shells, 4lb. and 6 lb. projectiles and 7” howitzer shells, for the Spanish American War.

September 1898 – Production of seamless steel tubing resumes at the Christy Park. Perfecting of the process led to pioneering developments in engineering and equipment and the addition of new buildings.
1900 – The Christy Park piercing mill, which operated since 1898, was converted into a “Job Shop”, a blacksmith shop, heat treating furnaces with pickling tubs and hydraulic draw benches for cold drawing small press vessels.

1910 – U.S. Seamless Tube Works built a machine at the Christy Park Plant to spin the necks of compressed gas cylinders, a technology that would prove invaluable for generations. Also in the same year, U.S. Seamless Tube Works developed two unique processes. The first process utilized a system of hot drawing through a series of dies. The second process utilized a cold drawn system for working barrels in the oil fields, tubing for conveyors, tapered tubes and a great variety of specialty equipment for other mills that did not have Christy Park’s capabilities.

1911 – U.S. Seamless Tube Works produced the first heat treated air flasks for submarines at the Christy Park Plant.

1913 – U.S. Seamless Tube Works produced 18” torpedo tube forgings as well as other cylinders, flasks and seamless tubing for the United States Navy at the Christy Park facility.

WORLD WAR I

1914 – Answering the call to arms, the Christy Park was converted to produce munitions for World War I. The heavy forge department turned out 21” torpedo tube forgings, high pressure air flasks, steam piping, mortar barrels, forgings cylinders and hydrogen cylinders and lastly, six million shell forgings.

1916 – Christy Park’s refinement of the hot drawing process allowed U.S. Seamless Tube Works to create tubing with a 25’ length and with a 24” outside diameter with a maximum weight of 4,400 lbs.

1918 – The Christy Park Plant underwent facility repairs and modernizations from the strain producing munitions. Included were a new hot draw building with a 2,000 ton press, draw benches and hammers.
POST WAR YEARS
(1920 to 1940)

1920 – Christy Park expanded the plant by adding a new main office building fronting Walnut Street, complete with cafeteria and subway to the mill. During this year, General “Billy” Mitchell asked the Christy Park Plant to design and manufacture 25 bombs to be used in an aerial raid demonstrating to the U.S. Government that airplanes could sink ships.

1921 – A new Hammerweld Mill building was also constructed to accommodate piping from sizes 21” OD to a 10’ diameter used in hydro-electric pipe lines, furnace stacks and oil cracking installation and towers. Christy Park’s Hammerweld pipe was used in the construction of the Los Angeles Aqueduct.

1929 – Christy Park introduced the new Electric Weld line, in a new building.

1920 thru 1930 – Small lots of bombs were produced using a spinning method. Christy Park constantly changed and improved the manufacturing techniques that led to improved designs and expansion in the scope of aerial bombs.

1930 – The Electric Weld division produced 20”, 22” and 24” OD electric weld pipe. The first contract for this division was for 500 miles of 24” pipe. The mill produced as much as 5 miles of pipe per day. During this time, the Great Depression caused U.S. Seamless Tube Works to shut down, reduce individuals to part time and lay off many of their personnel. This reduced Christy Park to a department of National Tube Works Company.

1933 – The Job Shop and Hammerweld departments picked up. National Tube Works provided business for the Hot Draw department which produced couplings forgings and finished joints.

1920 thru 1939 – Christy Park produced 45,000 bombs in 100, 300, 500, 600, 1,000 and 2,000 lb. sizes.

1939 – As economic recovery became a reality, U.S. Seamless Tube Works was reinstated to its previous status as Christy Park Works.

1920 thru 1940 – Christy Park Works continued to pioneer work in the development of technology utilizing cylinders for the storage and transportation of compressed gases.
WORLD WAR II

1940 – Christy Park converted once again to a massive production plant for the production of munitions.

1942 – The entire Electric Weld mill site was cleared for the purpose of shell production. The Hammerweld mill was also cleared for the installation of spinning machines, finishing machines and the furnaces required to produce bomb bodies and rockets. The number of employees reached 7,500 men and women building shells and bombs used in Europe and the Pacific.

1943 – Christy Park produced, at the request of the government to knock out Germany’s famous Siegfried Line, 240mm shells. Because steel was limited, Christy Park acquired a 450’ x 160’ building from a mill in Ellwood City, dismantled it, shipped it to Christy Park and re-assembled and equipped the building to produce and ship out the shells. All this was done in a six-month time frame.

1940 thru 1945 – Christy Park produced over 22.6 million shells, 3.7 million bombs, 1.3 million rocket tubes and motors and a million cylinder and air flasks.

1945 – With the end of the WWII, economic hardship once again hit Christy Park. All uncompleted contracts and orders were terminated and munitions operations came to a stand still resulting in transfers to other plants and dismissal of personnel. Water, hydraulic, steam and air lines were blown out while the machinery and equipment were prepared for a winter shut-down. The munitions producing equipment cleaned, covered and protected for an indefinite storage.

POST WAR YEARS
(1946 TO 1950)

1946 – Mill operations for commercial products, on a small scale, resumed in July with the first order for 24” OD cylinders and 3½” spun tubing. In August, the hot draw furnaces were fired up for work on 91/16” OD cylinders and other orders followed for 6½” OD to 24” OD cylinders. The Hammerweld building was converted from bomb stand-by to an Electric Welded Tank department to produce low pressure gas tanks. Christy Park Works manufactured television discs for cones, railroad tie plates, fabricated piling and JATO and Greer hydraulic cylinders during the difficult times.

1946 thru 1950 – The stand-by shell department was reactivated when modest Navy contracts were obtained for finished 5” .38 caliber finished shells and 5” rocket motors. Christy Park
Works also produced conveyors, bolsters, run-out tables, sludge tanks, hoppers and a variety of equipment for various mills. Christy Park’s commercial operations produced cylinders in sizes from 9” to 24” OD and in lengths as great as 80’ and wall thicknesses ranging from $\frac{1}{4}$” to 1.72”.

**1950 to 1960**

*(1950)*

Called to once again produce munitions for the United States, Christy Park produced rocket motors, shell forgings and finished shells. Employment rose to 3,500 and production totaled over 10 million pieces of munitions for the Korean Conflict.

The Hammerweld building once again was cleared to create a complete finishing line for 3.5” rocket motors and heads.

The shell department expanded its lines to produce 90mm, 105mm, 120mm, 155mm, and 5” shells.

**1950** – Christy Park Works continued as a “multi-purpose” plant with a product mix of high pressure gas cylinders, large OD heavy wall pipe, ordnance and specialty products. Commercial demand for cylinders was based on the industry’s growing need for on-site ground storage for a wide variety of compressed gases. Working with manufacturers of gas carrying equipment such as truck trailers and railroad cars, Christy Park Works developed safe and efficient methods of transportation.

**1951** – Christy Park Works played a major role in assisting the newly formed regulatory government agencies, American Society of Mechanical Engineers, Department of Transportation and Interstate Commerce Commission, in the creation and revision of regulations and specifications for the use of cylinders for compressed gas storage and transportation. Christy Park Works pioneered developments in compressed gas technology as well as in research, engineering and production for many of the agency’s specifications and regulations. Christy Park Works improved the large OD heavy wall pipe manufacturing process by changing from the cupping and drawing of plate to piercing and drawing solid steel blooms.
into cylindrical sections resulting in higher quality and cost, solidifying their position as a supplier of this product.

1954 – Working with the Navy, Christy Park designed and developed the modern “low drag” bomb. The “Nautilus” was launched carrying Christy Park Works cylinders used for critical oxygen, nitrogen and compressed air needed for her operation.

1959 – When the George Washington atomic submarine was launched, new curved cylinders, 18” OD by 16’ 9” long, developed by Christy Park Works, fit the hull which provided the compressed gas reservoir to launch the solid propellant Polaris missile. Christy Park continues to manufacture as many as 200 of these cylinders every year for the U.S. Navy.

1959 – Christy Park Works remained on the government’s list of “Planned Mobilization Base Producers” for the production of military materials in time of war.

1950 thru early 1960 – Christy Park continued its research and development work for the military to improve the design and expand the scope of aerial bombs.

1960 TO 1970

1961 – Alan Shepard made the first U.S. sub-orbital space flight, Christy Park cylinders were once again a part of the launch.

1962 – The Mercury capsule launch site contained cylinders from Christy Park.

1969 – Apollo 11 launch site contained cylinders from Christy Park.

1964 – Christy Park Works began producing munitions with the attack on two U.S. destroyers in the Gulf of Tonkin. Christy Park Works activated the bomb production lines and produced the Blu 31 / B and conventional bombs in 250 lbs. to 3,000 lb. sizes at a rate exceeding 80,000 bombs per month.

1964 through 1975 – Christy Park Works participated in the research, development and production of warheads for the Bullpup A and B air-to-surface missiles. This munitions production continued to supplement the commercial cylinder and roll forged pipe production until the end of the Vietnam War.
1975 – The government removed all bomb line machinery thus ending several decades of dedication which the countless workers of Christy Park Works toiled in helping to defend the United States of America.

LATE 1970’s

Christy Park Works continued operating in the markets of ASME storage units for industrial gases, DOT cylinders for gas transportation truck trailers, and cylinders for various applications in aerospace, petro-chemical processing, construction, food production, industrial controls, medicine, power generation, undersea exploration, and oil and gas production.

Christy Park continued roll forged pipe production for chemical process piping, conveyor rolls, hydraulic cylinders, condenser shells, coupling stock, rings, structural and a wide variety of mechanical parts.

1980 TO 2000

Christy Park Works was purchased by Stanwich Partners of Stamford, CT and renamed the park CP Industries, Inc.

Early 1980’s – With virtually no interruption in production, CP Industries experienced an internal “rebirth” as a totally independent plant by installing “people oriented” policies that enhanced the spirit of cooperation between labor and management.

1988 – CP Industries became part of Chatwins Group, a company comprised of independent divisions offering a broad range of fabricated and machined industrial parts and products.
Late 1980’s – CP Industries ability and experience in forging and finishing steel products, in conjunction with the new heat treating facility, brought many companies and contracts needing specialty pressure vessels opening up new markets including markets overseas.

1990 – CP Industries has continued to be a leader in products design, product improvements and innovative solutions by creating pressure vessels that correspond with the needs of each customer.

1990 – CP Industries designed and manufactured new pressure vessels with a nickel plated interior for storage of highly corrosive gases used in computer chip facilities.

1990 – CP Industries aggressively and successfully pursued international markets for pressure vessels in Europe, Asia, Australia, Malaysia, Indonesia, Thailand, Taiwan and the Philippines. CP Industries also has sales agents in Canada, Taiwan, Korea and the Pacific Rim.

1990 – CP Industries upgraded their facility to include the way seamless pressure vessels are manufactured. Instead of tubes being forged by hammers and dies, the ends of the seamless pressure vessels are spun to form the cylinder by computer programs allowing larger diameters and thinner walls.

1990 – CP Industries in one of five companies in the world with the equipment and the know-how to produce these specialized seamless pressure vessels.

PRESENT

April 2008 - CP Industries was purchased by CP Industries Holdings, Inc., in the state of Delaware.

June 2009 - ASTM International Steel Committee honored Gary Hayden with an - Award of Merit for his outstanding service to the ASTM Committee A01 on Steel, Stainless Steel and Related Alloys.

November 2009 - Roger Seese was nominated for Pittsburgh Business Times CFO of the Year.
August 2010 - CP Industries participated in a complete 120-page study, Measurement and Interpretation of threshold stress intensity factors for steels in high-pressure hydrogen gas, conducted by the Sandia National Laboratory in Livermore, California. Chief Metallurgist and Director of Quality Assurance, Gary Hayden, contributed information regarding heat treated materials in various strength levels and related processing information.

August 2010 - CP Industries announced a new third-party inspection company, Arrowhead Industrial Services Inc. With national and international office locations, Arrowhead is officially recognized and issued approvals by over ten national authorities as well as various branches of the Department of Defense.

October 2010 - CP Industries received DOT UN ISO 11120 certification. This approval is to manufacture large seamless tubes to ISO 11120 with certification to the UN Model Regulations for the Transportation of Dangerous Goods by the Notified Body of the United States (USDOT).