

# Franklin Bronze Precision Components – Investing in People, Equipment, Product and Processes for Today and The Future

**F**ranklin Bronze Precision Components (FBPC), founded in 1878 as a sand casting foundry in Franklin, Pennsylvania, is the oldest continually operating casting foundry in the state. In 1985, Franklin Bronze began investment casting production. Today, it is a leading, highly automated investment casting foundry supported by an in-house advanced toolmaking capability, a CNC finish machine shop and deep technical expertise – rapidly delivering from design phase to finish machined investment cast parts in the highest quality and consistency.

Franklin Bronze Precision Components is a world leader in the manufacture of investment castings for the glass container industry. Parts manufactured include guide rings, neck rings, baffles, plungers, inserts, thimbles, blowheads, and top-plates.

In addition to the glass industry, FBPC manufactures investment castings for food, automotive, drilling & mining, marine, steel, and valve & pump industries. Franklin Bronze has over 20 years' experience specializing in industrial castings. Castings can be poured in stainless steel, high nickel alloys, brass, bronze, aluminum – ranging in size from a few ounces up to 25 pounds (11.34 kg).

In 2014, Franklin Bronze was acquired by Wall Colmonoy Corporation. The two companies, Wall Colmonoy and Franklin Bronze have integrated and enhanced their technical expertise, sales & marketing efforts, and business goals. Wall Colmonoy is a global materials engineering organization with offices and manufacturing facilities located in the US and UK with approximately 500 employees. Wall Colmonoy and FBPC

share the vision of delivering world-class technical solutions to customers and being recognized as leaders in the field of advanced materials manufacturing.

 **REGULAR MEMBER**

**FRANKLIN BRONZE  
PRECISION COMPONENTS**

[www.franklinbronze.com](http://www.franklinbronze.com)

FBPC pours an extensive list of specialty alloys to meet specifications and requirements for a variety of environments. Franklin Bronze is compliant with industry standards including: ASTM, AISI, MIL, CDA, IC and AA. In addition to our namesake bronze alloys, we supply a wide range of stainless steel, brass, cobalt, high nickel and custom alloys.

Most recently, Franklin Bronze has been making significant investments in people, equipment, product and processes to increase productivity and efficiency, improve responsiveness and collaboration with customers and drive innovation.

### New Superalloy Inconel Castings

Franklin Bronze has added equipment and advanced methods to pour a new range of superalloys, such as IN-713C, IN-100, IN-738, IN-718 and others. Castings manufactured in Inconel alloys are used for various high-temperature wear applications. Some examples include actuation pivot shaft castings used in turbo chargers for the automotive industry, valve seats, and lever arms used in the valve & pump industry. The castings are utilized in many industrial land-based components (AMS certification not required).

### Cobalt-based Superalloy Castings

In addition to new Inconel alloys, FBPC also produces durable and wear resistant cobalt-based castings which are used in a variety of high-temperature applications offering the following advantages: the ability to absorb stress in high-temperature environments; superior hot corrosion resistance; and superior thermal fatigue resistance.

Cobalt castings are used in the canning industry to form the lids on cans and in steel processing. Valves and fittings made of cobalt alloys are used in the valve & pump industry where components come in contact with corrosive environments.

### Rapid Prototyping for New Product Development

Franklin Bronze introduced rapid prototyping through 3-D printed waxes to their investment casting process in order to more efficiently and effectively design and develop new products.

FBPC deploys 3-D printing prototyping in partnership with customers' engineering teams. New advancements in 3-D printing technology has allowed for rapid, small order prototyping with no need for wax model tooling. FBPC can more

quickly prove out the part and process to determine success. No tooling is required as the digital printing process is based on the CAD data for the component; the 3D printer builds the model layer by layer, with exceptional repeatability and capability no matter how complex.

### Optimized Facility Layout for Better Flow and Communication

Through re-evaluation of processes and workflow, the facility went through a layout re-design. The facility was optimized for more efficient layout to achieve better flow from department to department as well as intra-departmentally. The re-designed layout has created higher velocity through the plant and promotes communication and collaboration.

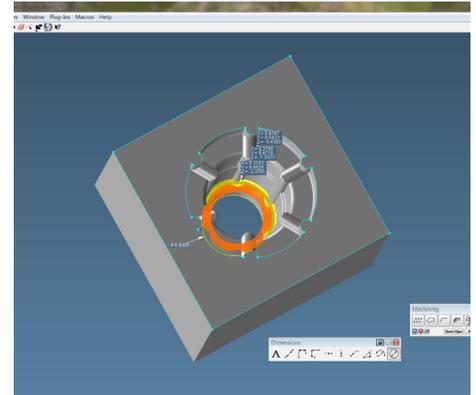
Additional facility improvements include the purchase of new CNC milling and turning equipment. This purchase was made to provide additional capacity in the machine shop for both large and small castings that require machining.

### Investment in People

FBPC employs a workforce of nearly 100 people. John Nichols was recently hired as General Manager and brings 30 years of experience in castings with a concentration in investment castings. As General Manager, John leads the Franklin Bronze team to develop and grow the business with a strong focus on safety, continuous improvement, quality, innovation and customer service.

Franklin Bronze, through the leadership and direction of John Nichols, is actively working on a broad range of workforce development initiatives including a vigorous cross-training program. In addition, Franklin Bronze obtained funding from WEDNet, which serves Pennsylvania's manufacturers. The funding has been used to train operators and staff in Lean, SIOP scheduling and other modern manufacturing techniques.

Through investments in people, equipment, processes and product, Franklin Bronze Precision Components continues to deliver to the market world-class products and technical solutions.



3-D CAD drawing



3-D wax model of a bracket component shown in 3-D printed wax



Lever arm made from IN-718 for use in valve & pump industry



Cobalt alloy casting