

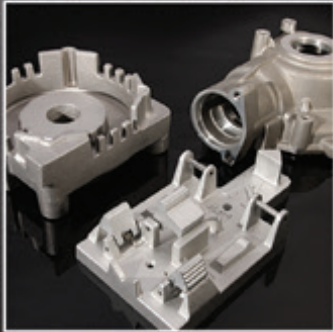


Manufacturer of Aluminum Castings

FRANCIS

MANUFACTURING COMPANY

Manufacturers of Aluminum Castings Since 1946





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Francis Manufacturing Company strives to be your very best aluminum sand casting supplier. With our flexibility and hands-on approach, we are able to deliver quality castings, on time and at competitive prices.

We work closely with our customers to maintain long-lasting and mutually beneficial relationships.

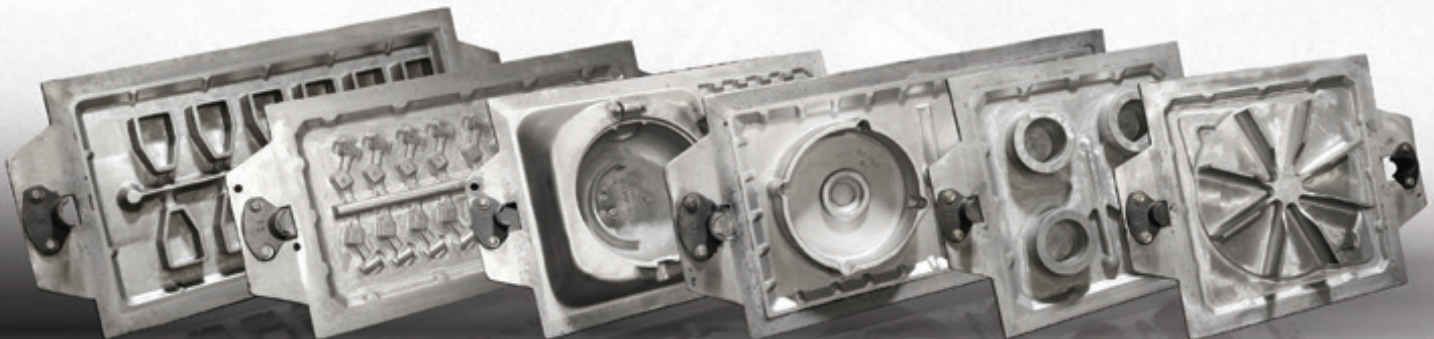
From concept to completion, we are able to help our customers design physically sound and high quality castings.



Francis Manufacturing Company provides castings for a wide variety of industries.

We are capable of producing castings that weigh fractions of an ounce to several hundred pounds. Serving accounts from coast to coast, we can satisfy your aluminum casting requirements with the level of service and satisfaction you demand. Allow us to ease your burden and permit you to focus on other priorities.

Our workforce of experienced and dedicated employees are cross-trained in a variety of job functions which results in skilled and knowledgeable attention to quality and detail.



Capabilities



Sand Casting Process

Francis Manufacturing Company produces quality castings using the green sand process.

A pattern is used to create an impression using a mixture of sand, water and organic compounds. A sand mold is comprised of two parts;

the cope (top) and the drag (bottom). Each mold is contained in an enclosure called a flask. The flask acts as an outer framework, allowing sand to be formed by compressing against the pattern and determines overall mold size. Before the flask is closed, cores may be placed inside the mold to create an internal casting configuration. Sprue holes are created into which molten aluminum is poured.

After the aluminum has solidified, each casting is “unearthed” from the sand in the shakeout process. Molds may contain several casting impressions joined together by runners, gates and risers used to distribute and feed the molten aluminum. Once the shakeout process is complete, castings are transferred to finishing operations where the gates and risers are removed and parting lines are ground smooth. Castings may go through additional processes or secondary operations based on customer specifications before finally being shipped.



Cores

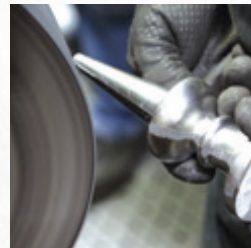
Core requirements are satisfied by using production shell cores utilizing a wide variety of sizes and configurations. CO2 process cores are available mostly for experimental and prototype work or small production runs.



Tooling

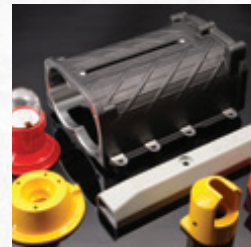
Both matchplate tooling and loose pattern equipment are common at Francis Manufacturing Company. **A wide variety of flask sizes assures maximum production and competitive prices for the smaller casting requirements.**

Larger sizes are produced from loose pattern equipment, which calls upon molding expertise not common in so many of today's high production foundries. Francis has many qualified employees who are “molders” in the truest sense of the word and an ongoing training program which assures that this art will never be lost.



Finishing Operations

Gates and risers are removed and parting lines are ground smooth. Our customers know that we pay attention to detail and trust they are going to get quality castings every shipment.



Secondary Operations

Francis Manufacturing Company is able to provide a variety of secondary operations for our valued customers.

In today's fast-paced economy, turnkey solutions can reduce

lead time and costs. We work closely with our trusted subcontractors to ensure that only high quality work is performed on our castings.

- Machining
- Polishing
- Painting
- Anodizing
- Impregnation
- Subassembly
- Heat Treating

Quality

We pay attention to detail and make sure that the quality standards remain high at Francis Manufacturing Company. **Our management team and experienced employees know exactly what it takes to cast, finish and ship high-quality castings.**

- Smooth surface finishes are obtained by keeping our naturally bonded sand well maintained and conditioned.
- Proper gating and risering techniques ensure that our customers get a physically sound casting.
- Melting and de-gassing procedures are closely monitored to eliminate porosity.



Francis Manufacturing Company is a family owned aluminum sand foundry located in Russia, Ohio (approximately 40 miles north of Dayton). Established in 1946 by Thomas V. Francis, we continue to produce castings for a very wide range of customers and industries across the United States. We have the capabilities to produce castings weighing fractions of an ounce up to several hundred pounds.

Within the 165,000 square feet of modern foundry facility, a wide variety of aluminum alloys are poured to satisfy customer requirements. With approximately 150 nonunion employees, we are able to cast very small order quantities to large production runs of thousands of castings per week.

Alloys

Listed below are the alloys we currently pour:

- 319
- 356
- 359
- 535 (Almag 35)
- 713 (Tenzaloy)
- 771
- A356
- A357
- C355
- ZA12 (Zinc)

Contact us today for further information on our company or capabilities, or fill out the inquiry form on our website **www.francismanufacturing.com** and we will contact you promptly.

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