



FOOD PROCESSING EQUIPMENT

INDUSTRY EXPERIENCE • ENGINEERING EXPERTISE • ADVANCED TECHNOLOGY





EXPERIENCE AN INDUSTRY LEADER

Waukesha Foundry has earned a reputation as an innovator in the production of anti-galling cast components approved with direct food contact for food processing equipment. Having an intimate knowledge of the markets we serve is as important to us as it is to our customers. Our advanced technical teams know how to meet the food processing equipment industry's needs for:

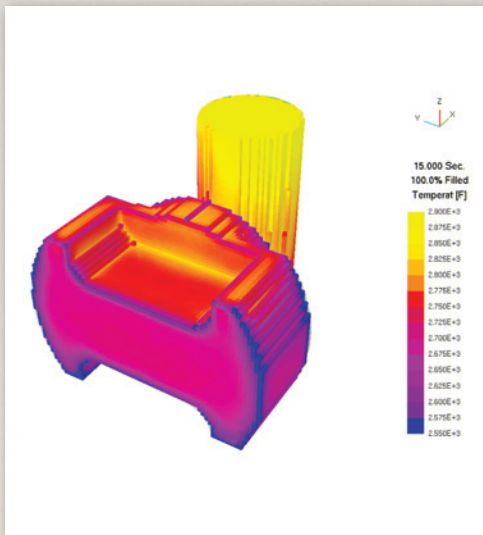
- ▶ Anti-galling alloys
- ▶ Corrosion resistance against food ingredients and cleaning and sanitizing compounds
- ▶ Cleanliness
- ▶ Defect-free quality
- ▶ Materials that meet industry requirements for strength and hardness
- ▶ Manufacturability/repeatability

With a century of experience as our foundation, we embrace changing technology and put our extensive expertise to work for you.

**AT WAUKESHA FOUNDRY, WE DON'T SHY AWAY FROM CHALLENGES...
WE ACCEPT THEM HEAD ON.**



INNOVATORS IN PROCESS ENGINEERING



Waukesha Foundry sets the standard for process engineering. Our degreed manufacturing and metallurgical engineers are involved throughout the entire process. This team uses their expertise to analyze customer requirements to determine which molding and casting processes are right for your food processing equipment application.

We interface with computer-aided design (CAD) systems, accepting fully surfaced or solid models. By using solidification modeling, we can identify problem areas *before* your castings are produced, which enables us to develop effective and efficient manufacturing processes, reduce lead times and ensure consistent quality.





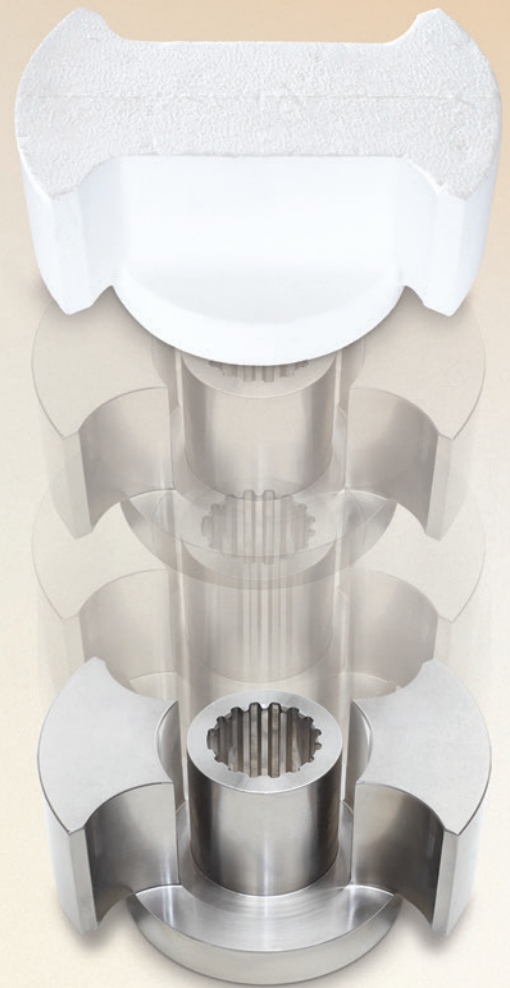
COMMITTED TO **SUPERIOR TECHNOLOGY**

Our commitment to technical advances sets us apart from the competition. With extensive metallurgical and manufacturing capabilities, we can produce castings ranging from 1 to over 6,000 pounds in over 200 different alloys, including our complete line of anti-galling alloys. Waukesha Foundry leads the industry in process-controlled engineering, manufacturing and testing.

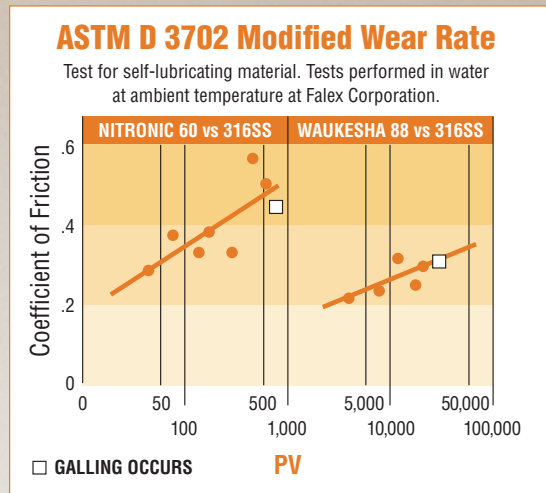
FoamCast molding process – Using this process, Waukesha Foundry can cast thinner sections and internal features while reducing machine stock, resulting in a lighter weight design with near net shape. FoamCast's advantages make it an excellent choice for rapid low-cost prototypes and low- or medium-volume production runs. It is also a good option for high-volume applications, which are not suited to other casting processes.

In-house nondestructive testing (NDT) – Our experienced staff of certified testing inspectors performs nondestructive examination and testing to ensure the integrity of your castings. Our capabilities include radiographic, magnetic particle and liquid penetrant inspection processes as well as pressure testing.

In-house precision machining – Waukesha Foundry's machining expertise is a tremendous value to our customers. Our combination of fine craftsmanship, high-tech processes and high-volume capabilities for machining castings is unparalleled. With extensive in-house operations, we maintain the highest quality standards.



THE DIFFERENCE IS WAUKESHA METALS



CORROSION-RESISTANT, ANTI-GALLING ALLOYS APPROVED WITH DIRECT FOOD CONTACT

Waukesha Foundry has developed a line of corrosion-resistant, nickel- and copper-base alloys that work in contact with stainless steel, Inconel®, Monel®, chromium plate and many other metals without galling or seizing. These unique alloys are used in applications where daily cleaning or sterilization is required and the use of lubricants is prohibited. Each of our anti-galling alloys has distinct characteristics to meet the requirements of specific applications where longer lasting parts and less maintenance is required, including:

- ▶ Food Pumps
- ▶ Mixers
- ▶ Filler Machines
- ▶ Homogenizers
- ▶ Ice Cream Scrapers
- ▶ Grinders

We conduct extensive testing on the corrosive effect of food products and chemicals on high-alloy materials and understand that conditions such as temperature variations, bearing load, mating materials, the type of product contacting the casting and operating speed are all factors in determining the right alloy for your application.

Waukesha Metal 88 – Offers good strength and superior corrosion resistance. This proprietary alloy can be used at low and high temperatures, is ideal for use wherever close clearance with moving parts is required and can be machined with or without coolant. WM88 has low thermal conductivity and requires careful tool selection – generally, cast iron grades of carbide are the best tool materials. To ensure quality, we run anti-galling testing on every heat produced. Gall testing is performed on-site and results are available upon request.

WM88 Buy Back Program

This program is a tremendous value to our customers. Since WM88 is a Waukesha Foundry proprietary alloy, we have the ability to recycle this material; therefore, we can buy back used rotors, plugs, drop offs and machine-segregated chips at highly competitive rates (substantially more than scrap prices).

Waukesha Metal 23BI – This anti-galling alloy has higher yield strength and hardness than our standard WM88. These characteristics help maintain a sharper edge on blades and similar components. It offers good corrosion resistance and can be used at low and high temperatures. It is readily castable and machinable, and can be used at low and high temperatures.

Waukesha Metal 126 – We developed this copper base, anti-galling material for use in meat processing plants for form plates, plungers and vane pumps. WM126 is also well suited for gears, bushings and bearings. This alloy offers good strength and corrosion resistance and can be used at low and high temperatures. **Note:** WM126 is not an Ni-base alloy.

Waukesha Metal 3 – Specially formulated for excellent strength and corrosion resistance, this food-grade alloy has a copper base and can be used at low and high temperatures. It is well suited for homogenizers.



UNCOMPROMISING QUALITY STANDARDS

Quality is a way of life at Waukesha Foundry. Using Six Sigma principles, our certified Black Belts drive continuous improvement. We build quality into every step of the process, which is exhibited by the certifications we hold:

- ▶ ISO 9001:2008
- ▶ ASME Section III NCA3800
- ▶ ASME IX Certified Welders
- ▶ MIL-I-45208
- ▶ MIL-STD-45662
- ▶ American Bureau of Shipping (ABS)

SEE WHAT WE CAN DO FOR YOU

Customer satisfaction is important to us. We work closely with our customers to engineer the right process for their application. To find out what Waukesha Foundry can do for you, please call us or visit our website at:

www.waukeshafoundry.com



WAUKESHA FOUNDRY, INC.

1300 Lincoln Avenue • Waukesha, WI 53186 USA

Tel + 1 800 727 0741 or + 1 262 542 0741

Fax + 1 262 549 8440

E-Mail info@waukeshafoundry.com

www.waukeshafoundry.com

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