

Food Production Facilities Maximize Uptime and Minimize Contamination with Hybrid iCams® Cam Followers.

Greaseless Cam Follower With Hybrid Design Eliminate Corrosion and Contamination in Wash-down Applications.

The wrong type of cam follower or roller can lead to contamination issues, frequent maintenance and reduced service life—especially in washdown applications. This is an especially important concern now that washdown chemicals have become more caustic under the FDA Food Safety Modernization Act (FSMA). In these environments, even traditional all-metal stainless steel cam followers are subject to corrosion and accelerated metal-to-metal wear, leading to premature failure.

Fortunately, you have another option in the form of a hybrid design. This maintenance-free cam follower combines a polymer load-bearing surface with stainless steel, ceramic or hybrid-ceramic ball bearings, enabling the cam follower to withstand even the harshest conditions.



The Power of Power-Core™ iCams®. Example: Capped cam follower

The Power of Power-Core™ iCams®

Bear in mind, not all plastics will be equally suited for use in cam followers and guide rollers in washdown environments. With over 35 years of design experience, our engineers have selected polymers for washdown applications that can be precision machined, are dimensionally stable and don't swell in moisture. These polymers are also highly resistant to chemicals and temperature fluctuations and exhibit excellent wear properties. Whereas traditional cam followers are subject to corrosion and wear, our Power-Core iCams® don't corrode at all, making them a good fit for washdown applications, outdoor exposure and other harsh environments.

Eliminate Contamination From Grease and Metal Particulates



Fitted with sealed bearings, iCams® self-lubricating, highly wear-resistant bearing surface eliminates two potential sources of contamination: stray lubricant and particulates from metal-on-metal wear, both of which could contaminate your product.

Needle bearings in metal cam followers require frequent lubrication because washdown liquids can wash off the grease from both the cam follower, as well as from the rail or cam that the cam followers are running on. Lack of lubrication can significantly reduce the cam followers' wear life. To eliminate this need for lubrication, Intech polymer cam followers feature sealed ball bearings, which are pre-lubricated for life. And the metal surface the iCams® are running on doesn't have to be lubricated either. Thanks to this design, you can start your machine immediately after washdown, saving regreasing time. In addition, the wear-resistant polymer outer racer doesn't wear the metal surface it's running on, preventing the generation of metal particulates. This is a frequent and highly undesirable source of particulates contamination with metal cam followers—especially in food, beverage or pharmaceutical applications.

For these reasons, iCam® polymer cam followers and guide rollers are an excellent replacement for metal cam followers—including stainless steel—in filling, packaging or processing machines used in food, beverage or pharmaceutical applications, electronics assembly and other hygienic environments. Satisfied customers testify that Intech iCams® often outlast the metal cam followers they replaced.

Save on Maintenance and Downtime

Besides saving on lubrication and avoiding product contamination, Intech iCams® offer additional savings by eliminating the need to replace worn metal components in contact with metal cam followers due to metal-to-metal wear. Insufficient lubrication between washdown sessions often accelerates this wear process.

For example, replacing a cam in a food processing or packaging machine—especially outside the scheduled maintenance window—can lead to prolonged downtime and production losses, not to mention all the maintenance overtime to minimize the lost production time. iCams® don't wear out the metal surfaces on the machine components they're running on, saving all the costs associated with replacing them and extending maintenance intervals.

Remember Your Bearings

And don't forget, your choice of bearing matters too. iCams® with sealed stainless-steel bearings and shafts are the traditional, go-to choice whenever corrosion is likely. You also have ceramic options, which are preferred by customers who use more aggressive washdown solutions. These ceramic bearings reduce friction, feature a high static load capacity and don't rust, which is especially appealing for hygienic environments. Two types are available, all-ceramic or hybrid ceramic bearings, the latter of which combines ceramic ball bearings with a steel race. The hybrid type can also withstand some shock load. Despite their many benefits, however, ceramic bearings tend to come with a hefty price tag compared to stainless steel.

Reap the Benefits of Higher ROI

The precision ball bearings used in iCams® exhibit low rolling resistance compared to externally greased needle bearings in metal cam followers. Over-greasing leads to more rolling resistance and often to skidding—another cause of wear. In machines with several dozens of cam followers, low rolling resistance will result in lower drive power requirements and energy savings. iCams® also weigh about 40-percent less than traditional cam followers. The lower weight and rolling resistance enable our customers to increase their line speeds and line output. Higher line speeds, combined with all the other savings iCams® offer, deliver higher ROI to our customers.

Intech Corrosion and Wear-Resistant iCams®—Designing for New or Existing Machines

At Intech, whether we work with design engineers on new equipment or maintenance engineers on existing production machines, we've found that we can design our way around the problems associated with washdown, moisture and other environmental factors by picking the right type of polymer and bearing combination. If our standard cam followers aren't a good fit for your application, we can design one that will. For example, we designed a capped iCam® that can handle high-pressure washdown.

To learn more about your cam follower options, please contact our engineering team. We're also happy to verify the iCam's® load capacity and estimated lifespan in your application—free of charge. Ask us about samples for testing. Our standard iCam® sizes serve as drop-in replacements for metal cam followers, including stainless steel.

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About Intech Corporation

Intech Corporation specializes in the design and manufacture of lightweight, robust, low-noise machine components that eliminate the need for lubrication. Our self-lubricating products include gears, guide rollers, cam followers and customdesigned motion components. To meet your application requirements, we employ a variety of advanced polymers, low friction coatings, metal alloys, or polymer-metal hybrid structures. We have pioneered many design solutions and support each design with advanced durability calculations, including stress simulations

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