

## Ball-bearing vs. Plane Bearing Technology in Heavy Wash-down

Rockford, IL – November 23, 2009

The wash-down process—frequently used in food, beverage and pharmaceutical production—is a large obstacle for effective long-lasting linear motion. Periodic, high pressure spraying of water or other chemicals (often caustic) can lead to penetration of seals, corroding of the linear motion product, and eventual catastrophic failure of the system along with the risk of potential contamination of the end-product.

Ball-bearing type linear motion products are made of steels which are susceptible to rusting and not designed to last in wash-down applications. They also require mass amounts of lubrication and have many integral internal areas that may harbor bacteria. Even with seals and bellows, immersion and wash-down will inevitably lead to rusting of the bearings. Over time, rust particulate will break off in the persistent wash-down process. These particles, trapped inside the bearing track by the same seals meant to keep contamination out, accumulate until the entire bearing stalls and binds up—leading to catastrophic system failure, unplanned downtime, and skyrocketing costs. Worse yet, catastrophic failure could even lead to costly product liability/contamination law suits or product recalls.

On the other hand, Simplicity® linear plane bearings provide the perfect solution and will not catastrophically fail. Chemically inert, corrosion resistant, self-lubricating and containing no rolling elements, plane bearing technology thrives in wash-down applications without contamination and costly lubrication. Constant immersion poses no problem. The bearings are composed of a corrosion resistant, anodized aluminum alloy that easily tolerates wash-down. Travel is also unaffected with plane bearings. Using a proprietary Teflon liner, plane bearings glide reliably and accurately—even under high-pressure spraying. Particulate build-up along the shaft is harmlessly absorbed by the liner, ensuring high performance linear motion for years of trouble-free service. Additionally, Simplicity® bearings run on stainless steel or ceramic coated aluminum shafting for the ultimate in system corrosion resistance.

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# NEWS RELEASE



Even when subjected to other cleaning chemicals, Simplicity® plane bearings are designed to support long-lasting smooth and quiet linear motion. Already tested to perform with a number of different compounds (**See chart [page 62 in general catalog]**); Simplicity plane bearing technology easily outlasts ball-bearings in wash-down applications.

For more information on PBC Linear's Simplicity® product line, please call 1.800.729.9085, email to [marketing@pbclinear.com](mailto:marketing@pbclinear.com), or visit us at our Round Shaft Technology (RST) dedicated website: [RST.pbclinear.com](http://RST.pbclinear.com) for free downloadable materials and other application examples.

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