

# NEWS RELEASE



## PBC Linear's Integral V™ Extends the Reach for Equipois zeroG™

Rockford, IL – February 23, 2009

Equipois Inc., a technology company based in Los Angeles provides ergonomic solutions, to reduce injury costs and increase productivity in hand tool applications at major manufacturing companies. Their product, the zeroG® arm allows for heavy tools (grinders, torque wrenches, drills) to be rendered weightless while providing complete range of motion and completely eliminating heavy-lifting! In one of their most recent applications, Equipois approached PBC Linear for a complimentary linear guide system to act as the mounting solution for the zeroG4 arm in a grinding work-cell.

Successful linear guidance for the drilling arm rested on two factors: ease of movement and load handling. The application required a linear system in order for the drill technician to operate the drill in the wide working envelope of the industrial grinding area. Fitted with the grinding tool, the moment load on the slide was 1500 in/lbs and the zeroG® arm system weighed 30lbs. Under this heavy load, the overall system needed to be easily moved by hand, using only 6 lbs of push force at a max speed of 3 ft/sec. For Equipois, ergonomic linear motion mobility was the primary concern; thus they turned to PBC Linear to solve the problem.



*zeroG® attached to Integral V™*

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#### LINEAR MOTION SOLUTIONS

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Integral V™ Technology (IVT) was the solution for Equipois's mounting challenge. Introduced as the next generation linear guide, Integral V™ is designed for heavy load support, precise guidance, and smooth travel. Each IVT linear guide aluminum extrusion is precision-machined using PBC Linear's patent pending SIMO™ process. This creates a stronger, more rigid extrusion that matches the strength of steel—allowing IVT to easily handle high static/dynamic loads. The SIMO™ process machines all critical sides of an aluminum extrusion in one pass, creating a remarkably precise dimensional and form accuracy: flatness .002", parallelism  $\pm 0.001$ ", and straightness  $\pm 0.002$ "/ft. This eliminates the need for fasteners, and drastically reduces alignment/installation time by half while ensuring high accuracy.

Reduced costs and simplified assembly are very attractive reasons to choose IVT, but the proof lies in the performance. Equipois needed a guide system to support a high roll moment load (the zeroG suspends tools using an extendable/moveable arm attached to the linear guide). Once installed, the Integral V™ linear guide system easily tolerated the required static/dynamic loads (IVT Double Bolt-on tested for roll moment loads of 338 N-m static and 374 N-m dynamic). Gothic arch dual row bearings provided



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smooth, hand-operated travel of the linear guide; allowing the zeroG™ to be freely used throughout the grinding area under the guidance of the operator's hand!

Easily adapted into the Equipois system, IVT worked great with the zeroG™. The grinding tool operator could bend, pull, align and grind with ease, and IVT gave enhanced movement and freedom to the tooling area. For more information on Integral V™ Technology (IVT); such as more application examples and detailed technical data, please call 1.800.729.9085, email to [marketing@pbclinear.com](mailto:marketing@pbclinear.com) or visit us at our homepage at [IVT.pbclinear.com](http://IVT.pbclinear.com).

For more information on Equipois zeroG® and their cutting edge technology that reduces injury costs while improving productivity, please visit their website at <http://www.equipoisinc.com>.

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