

zeroG[®] Case Studies: Grinding

Mercury Marine Case Study: Recognized with a 2009 Progressive Manufacturing Award for both Equipois and Our Customer



Customer	Grinding Problem	Our Solution	ROI
 <p>Mercury Marine (World's leading manufacturer of recreational marine propulsion engines)</p>	<p>Holding a 35 lbs. propeller to a belt grinder caused undue ergonomic risk. Mercury needed to fix this while enabling the operator total freedom of motion (because a good polish is "more art than science").</p>	<p>Each propeller now placed in a zeroG⁴ mechanical arm (we can do part-to-tool just as easily as tool-to-part). The operator holds the propeller to the belt grinder like he normally would – except the propeller weighs nothing. (Detaching a propeller from the arm takes only a few seconds).</p>	<p>"Reduced cost and lead time; increased product weight without impact on safety; reduced/eliminated injury potential; decreased process steps; improved product quality due to control; increased utilization of workforce and equipment; estimated ROI of 100%"</p>

zeroG[®] at work in the Aerospace Industry

Customer	Grinding Problem	Our Solution	ROI
<p>Aerospace Components Manufacturer</p>	<p>Manual grinding of a nacelle (the leading edge of a jet engine) was too time-consuming, requiring three separate precision grinding tasks.</p>	<p>Taking advantage of the fact that tools weigh nothing in "zeroG[®]", the customer used a zeroG⁴ arm to upgrade to a heavier – and more powerful – electric grinder.</p>	<p>Significant reduction in labor hours and throughput, enabled by a more powerful tool. Far fewer sanding pads used. Bottom line: 400% ROI</p>

zeroG[®] at work in the Transportation Industry

Customer	Grinding Problem	Our Solution	ROI
<p>Transportation Equipment Provider</p>	<p>Our customer had been grinding the horizontal and bottom surface of barges – and experiencing repeat shoulder injuries in a difficult outdoor environment.</p>	<p>A zeroG⁴ was mounted to a man-lift on an 80/20 rail with quick release handles.</p>	<p>Total labor hours reduced by 50% for this operation. Reduction in shoulder injuries (at roughly \$80k per incident).</p>