

## WheelWatcher Benefit Summary by Department

<b>Production</b>	<b>Maintenance</b>	<b>Quality Control</b>	<b>Research &amp; Development</b>	<b>Engineering</b>
Avoid lost opportunity cost on production machine	Predictive maintenance	Rejects bad bottles	Allows improved process designs (heat, blow pressure settings, blow pressure timing, stretch timing, stretch speed, etc)	Can statistically prioritize projects and capital expenditures that address actual needs (adds objectivity)
Avoid lost opportunity cost on upstream (preform injection) and downstream (palletizers) equipment	Maintenance indicators	Rejects suspect bottles	Allows improved mold designs	Allows feedback control of process on the wheel (blow pressure servo-solenoids, stretch rod servo-cylinders, etc)
Reduce setup and changeover times	Real-time troubleshooting tool	Reject bottles that fail to meet ideal profile	Allows improved machine designs	Provides platform for advanced ideas and testing
Less downtime; more uptime	Troubleshooting can occur without stopping the machine	Statistical Process Control (SPC) integration	Allows multi-machine comparisons of preform, mold and process modifications	Provides interoperable platform for data sharing and warehousing
Integrated equipment provides better production control solution	Trouble logging	Improve station-to-station consistency	Provides data not previously available	Improves reliability
Production data available to enterprise information management system(s) / network(s)	Lower labor costs due to less contact time on machine to detect and resolve problems	Allows station-to-station profiling of process parameters	Provides Design of Experiments display	Yields high rates of return on investment
Ambient / seasonal production parameter modification and tracking	Reduced spare parts cost; no longer replace good parts with good parts trying to correct a problem	Lower labor costs due to less contact time on machine to capture QC related data	Facilitates correlation studies	Allows plant-wide process connectivity and coordination
Less scrap	Fast, automated calibration	Provides data not previously available	Allows improved preform designs	Improves maintainability
Less opportunity to deliver an off-specification product to the customer	Modular design reduces diagnosis and repair time	Data gathering is automated and less susceptible to human error		Provides platform for advanced technology deployment
Saves rework sorting / picking through suspect bottles		Provides a platform for advanced Design Of Experiments (DOEs)		