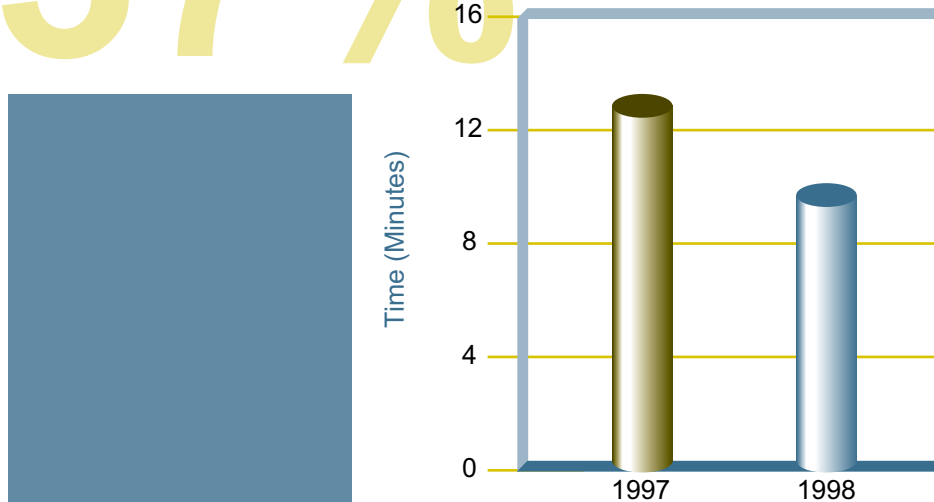


Honeywell

Honeywell Improves Productivity and Workers' Compensation Costs with Humantech

Honeywell's facility in Torrance, California, formerly a division of AlliedSignal, is best known as a high-volume Garrett® Engine Boosting Systems manufacturer. Since 1954, Garrett has been recognized around the globe as a leader in the turbocharger industry. From its long list of industry firsts to its leading-edge turbos for race cars, Garrett develops and manufactures some of the most innovative boosting technologies available today. Honeywell's Garrett operations include sites in Asia, Europe, North America, and South America. Worldwide, the company employs more than 6,000 people.

37% **37% Increase in Productivity**



Humantech assisted Honeywell's Torrance, California, facility in the redesign of a turbocharger assembly to dramatically reduce injuries while improving throughput 37%. Workers' compensation costs were reduced by \$2 million per year plant-wide.

Honeywell

The Challenge

In 1996, facing increased volume, safety performance was well below the targeted plan for the division. While ergonomics-related incidents represented less than half of the overall recordable injuries and illnesses, the expanding production needs created both a potential problem and a unique opportunity. Increased production could lead to extended overtime, increasing employee exposures to musculoskeletal disorder (MSD) risks. At the same time, capital became available through a lean manufacturing initiative to improve health, safety, and productivity.

approximately \$300,000 more than that of replicating the original work cell. Plant management was eager to see a quantifiable return on investment for the increased costs.

Completion of the new work cell represented the culmination of a two-year process to prioritize ergonomic risks throughout the facility, to train operators and engineers in ergonomics, and to put in place a showcase ergonomics project.

The Solution

Humantech assisted Honeywell's lean manufacturing manager in prioritizing the ergonomics challenges throughout the facility and training the plant population in the recognition, evaluation, and control of MSD risks. Engineering and technical staff were trained in solving ergonomics challenges and all operators were trained in ergonomics awareness. At the conclusion of this phase, the high-volume turbocharger assembly cell was targeted for expansion. This cell had been one of the highest ergonomics priorities, and management knew that a fresh approach was needed to assure that the new production area did not replicate the problems associated with the existing one.

With operator involvement at each step, Humantech ergonomists and Honeywell's team established a design process, which included brainstorming improvements, evaluating vendor-supplied equipment, and improving setups as the cell came together. It was estimated that the cost of improved layout was

The Results

The ergonomic and lean manufacturing design of the turbocharger assembly work cell resulted in substantial reduction of ergonomic risk and improved productivity. Several high-risk tasks were designed out altogether. Given that some parts weigh as much as 75 pounds, a 60% reduction in high-risk lifting tasks was quite significant. Productivity increased by 37%, translating to \$94,000 per year in reduced labor costs. By 1999, plant-wide workers' compensation costs were down almost \$2 million per year.

While there are other definable benefits to the new cell design, labor costs are simple to quantify. Items such as improved employee morale and reductions in defective products are anticipated, but these can be difficult to track and are often viewed as "soft" costs by management. The productivity increases alone provide a 3.2-year payback period, sufficient for the capital requirements of the plant.

About Humantech

For 30 years, global companies have relied on Humantech for workplace improvements. By combining the science of ergonomics and our unique 30-Inch View®—where people, work, and environment intersect—we deliver practical solutions that impact safety, quality, and productivity. At Humantech, we believe people make productivity happen. The 30-Inch View is a registered service mark of Humantech, Inc., 2008.