

2003 Showcase in Excellence Awards Recipient

Honeywell Engines, Systems & Services



Engines, Systems & Services
Phoenix 34th St. & Washington
& Air Lane site

Company Information:

Highest Ranking Official: Russ
Turner, Honeywell ES&S
President

Contact Person: Chetan Date,
Director Quality Systems &
Initiatives
602-231-4361
chetan.date@honeywell.com

Type of work: ES&S produces a wide array of Aerospace products for the world's leading aircraft manufacturers, airlines, U.S. military, aircraft owners, and aircraft operators. Products include environmental control systems; power generation systems; engine controls; and prime propulsion and auxiliary power gas turbine engines. ES&S also provides repair & overhaul, customer support, logistics, spare parts, and ground support equipment services.

Workforce: 14,000 employees
(45% in Arizona)

Testimonial of Value of Arizona State Quality Awards Program

“Honeywell Engines, Systems & Services is pleased to be selected to receive the Arizona Governor’s Quality – Showcase in Excellence Award for our Key Characteristics management process used for Variation Control. As a company we have placed a high degree of importance on Six Sigma and on variation control. The Arizona Governor’s Quality award application process helped us to see what we are doing well and re-emphasized the importance of continued focus on our customer needs, visible leadership involvement, and employee training and commitment. Thank you for the opportunity to participate in this great program”.

-Dick Pocock, Vice President, Quality Assurance
Honeywell Engines, Systems & Services

Highlights of Organizational Process

Honeywell’s Six Sigma culture is the engine for driving growth and productivity in every function of the company. The Variation Control Process builds on this culture and discipline. The process addresses the root causes of product variation in product design and procurement.

Honeywell ES&S has been successful in implementing the Variation Control Process across a large organization by using a comprehensive approach that includes strategic planning, leadership engagement, meaningful metrics based on goal deployment and accountability, policies and process and the use of digitized tools, and organization structure and training.

Overall Results:

- Existing teams have achieved significant cost savings and cost avoidance over the past two years.
- 550 teams are engaged in variation control projects.
- Honeywell customers are involved in the process and continue to recognize Honeywell for meeting their needs.

Process Steps:

The Variation Control Process begins with the customer and the identification of customer's critical to quality (CTQ) elements such as form, fit, performance, reliability and durability. Once the CTQs have been identified, the team performs a cause and effects analysis. The data from the analysis is used to identify product or process key characteristics where variation will affect the CTQs. Manufacturing process data is then collected, analyzed and prioritized for process capability improvement. Inherent in this process is an understanding of what is important to the customer, rigor in applying Six Sigma tools, and employee commitment to reducing variation.

Strategy and Leadership:

Honeywell ES&S leaders do more than talk about the importance of variation control. The importance of the process is clearly defined to the organization through the annual planning and goal deployment process that includes expected measurable business results. Senior level leaders review key characteristics (product or success features that affect the customer's most critical product requirements) on a monthly basis. Senior leaders also assist in teaching Design for Six Sigma classes helping employees learn the fundamentals of variation reduction.

Measurement, Analysis and Knowledge Management

In addition to tracking quality improvements by measuring customer escapes, scrap & rework, warranty costs and supplier defects, ES&S has put metrics in place to monitor key characteristic and Cpk (process capability) for each program. Specific variation reduction goals and outcomes are part of employee objectives at all levels of the organization.

Use of Six Sigma and Digitized Tools

Employees are expected to use the available tools to enable them to succeed in reducing variation in Honeywell ES&S products and processes. A key characteristics database is available as well as standardized Statistical Process Control Software. Employees also use such tools as sensitivity studies, pareto analysis, statistical design methods, quality function deployment and root cause and corrective action to achieve their variation reduction and quality goals.

Organization and Training

All employees involved in product and process design have been trained in Design for Six Sigma and Manufacturing process control. This rigorous training coupled with the expectation that employees will adhere to all processes and will be measured and rewarded on their quality and variation reduction goals, has resulted in a culture that is focused on meeting customer expectations.