



## The Company

Baldwin Filters works to protect engines and engine-powered systems from dirt. Known as the heavy-duty people, Baldwin Filters builds air, oil, fuel, hydraulic, coolant, and transmission filters for a wide variety of applications, including agriculture, automotive, construction, mining, industrial, marine, and trucking.

With 1,200 employees, sales of \$200 million, and facilities in the United States, Mexico, China, England, and South Africa, the company designs and manufactures more than 4,100 different types of air, coolant, diesel/gas fuel, hydraulic, lube, and transmission filters.

Baldwin's strategy is to design each filtration product rather than assemble components made by other companies. This design process provides Baldwin engineers with constant opportunities to improve and to deliver the world's best filtration products.

## The Challenge

### Delayed Time-to-Market and Reduced Revenue

Baldwin's 20-person engineering staff and 10-person support team introduces an average of 700 new filters per year. In the past, processing up to three new products and an average of 12 engineering change orders (ECOs) per day generated an overwhelming amount of paperwork that slowed down Baldwin's engineers considerably.

New products faced similar delays, averaging ten to twelve months to reach the market. These delays reduced revenues and meant that an extensive portion of an engineer's time was devoted to shuffling papers rather than meeting customer needs.

## Automotive

### The Success

- **Faster Time-to-Market**

Reduced product development cycle by one month, resulting in \$50,000 additional revenue

- **Increased Revenue**

Reduced average ECO implementation by one month, generating savings of \$125,000 annually

- **Increased Engineering Productivity**

Reduced paperwork frees engineering to develop next generation products

### The Story

**Baldwin Filters estimates that its new eMatrix solution-based product release process will reduce the product development cycle by one month — adding approximately \$50,000 per year in revenue to the bottom line.**

## Minimum Cost, Minimum Training

Baldwin managers wanted to automate this process using a product development management system but were concerned that such a system would require hundreds of thousands of dollars worth of customization before users could perform even the simplest tasks.

Baldwin contacted Avatech Solutions, a design automation integrator with experience in product development management solutions, to analyze the company's engineering processes and develop a formalized set of specifications.

The Avatech team brainstormed with Baldwin managers to develop these specifications for a system capable of automating the company's approval process. After a thorough evaluation, Avatech recommended MatrixOne's eMatrix solution as one that could automate Baldwin's existing processes with minimum customization and training.

# The Solution

## The Savings Add Up

Upon Baldwin's acceptance, Avatech began the process of installing the eMatrix solution, providing initial employee training, and assisting Baldwin engineers in laying out the implementation process.

The first area addressed was Baldwin's ECO process. Through eMatrix automation, Baldwin estimates that the company has saved approximately one month per ECO, a savings of \$125,000 per year. Furthermore, an indeterminate amount of additional savings comes by reducing the time engineers spend on paperwork.

Next, Baldwin engineers focused on automating its five-step New Product Release (NPR) process — request, design, approval, implementation, and release. With this process automated through the eMatrix solution, management estimates that the company will reduce the product development cycle by one month and thereby produce \$50,000 in additional revenue per year.

Further benefits are expected. The new NPR cycle also enables the contribution of many others in the process, a benefit that is expected to result in higher quality new product decisions and additional revenue.

## The Bottom Line

The eMatrix solution has enabled Baldwin Filters to generate additional revenues, implement cost savings sooner, and free-up valuable engineering resources to spend more time designing next generation filtration systems.

## About MatrixOne

MatrixOne, Inc. (NASDAQ: MONE) is a recognized leader in delivering collaborative Product Lifecycle Management (PLM) solutions. Together with our partners, we provide flexible solutions that unleash the creative power of global value chains to inspire innovations and speed them to market. MatrixOne's more than 625 global customers represent the aerospace/defense, automotive, consumer products, general machinery, high technology, and life sciences industries, and include GE, Procter & Gamble, Phillips, Siemens, Agilent Technologies, Johnson Controls, and Honda. MatrixOne is headquartered in Westford, Massachusetts with locations throughout the world.



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