

## Product Development and Problem Solving

### PRODUCT DEVELOPMENT

The Technical Center at Eriez is always engaged in new product development. Special steps are taken to assure that new products are focused on and optimized for real-world application problems. The experts that carry out application tests for our customers are familiar with state-of-the-art hardware and systems (even those still under development) for solving the given application problem. New Eriez products are frequently developed to solve a problem for a single customer.

Research & Development personnel serve as project managers for teams which include engineers, designers, manufacturing, purchasing, and sales experts from within Eriez, and outside consultants with special design and application expertise in the area being considered. The team first sets a target performance objective, based on marketing and application test input, then monitors and controls the design process until one or more research prototypes can be produced.

During the design process, substantial analytical input in the areas of magnetic circuit design, electronic circuit design, stress analysis and structural dynamics is often required. These analyses are carried out by Research & Development experts, using the latest 2D and 3D finite element (FEA) computer simulations. R&D personnel also have on-line access to a wide variety of technical and patent-related databases worldwide.

Research prototypes are subjected to rigorous application and durability tests. They are frequently modified and retested several times before an optimum design is achieved. Material used for testing is frequently supplied by customers who have a requirement for similar equipment. When the design rules have

been finalized, the project is turned over to Eriez' Engineering department for production drawings and, ultimately, for manufacture.



*Eriez' Engineering department employs the latest computer aided engineering tools, including more than 30 CAD seats at the Headquarters office. Design software includes Autocad and Ansys. Equipment "outline" drawings are available to customers in Autocad Release 2002 DWG format or in DXF format.*

Customers with a requirement for specialized equipment to solve a materials processing problem are invited to come to the Eriez Technical Center not only for application tests, but for assistance in developing the equipment itself.

### PROBLEM SOLVING

Eriez Technical Center personnel also are frequently called on to solve customer application problems in the field. Although this activity usually involves optimizing the application of Eriez products, we can also advise on needed modification or replacement of competitive equipment, particularly when used in conjunction with Eriez equipment.

