





## **Turbine Manufacture**

The machinery pictured is a set of Turbodyne steam turbines which power a sugar mill at Bell Glade, Florida. A NASA-developed computer program called NASTRAN aided development of these and other turbines manufactured by Turbodyne Corporation's Steam Turbine Division, Wellsville, New York. An acronym for NASA Structural Analysis Program, NASTRAN is a predictive tool which advises development teams how a structural design will perform under service use conditions.

Turbodyne uses NASTRAN to analyze the dynamic behavior of steam turbine components, achieving substantial savings in development costs. One of the most widely used spinoffs, NASTRAN is made available to private industry through NASA's Computer Software Management Information Center (COSMIC) at the University of Georgia.

## Laser Research

Eastman Kodak Company, Rochester, New York is a broad-based firm which produces photographic apparatus and supplies, fibers, chemicals and vitamin concentrates. Much of the company's research and development effort is devoted to photographic science and imaging technology, including laser technology. Eastman Kodak is using a COSMIC computer program called LACOMA in the analysis of laser optical systems and camera design studies. The company reports that use of the program has provided development time savings and reduced computer service fees.

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