

PROBLEM *Paper and Plastic Disposal*

A major manufacturer of desktop and portable personal computers, **Compaq Computer Corporation of Houston, TX**, has experienced substantial growth since its startup in 1982. Along with growth, came the problem of managing the handling and disposal of a tremendous amount of paper and plastic packing materials. At first, this material was hauled to a local landfill at an annual cost of about \$240,000. As production increased, this cost rose rapidly.

SOLUTION *An Automated Waste Handling System*

A decision was made to design an automated waste handling system and burn the wastes on site using the heat produced as an energy source for heating and cooling. The system included a **BloApCo 3-shaft 66" wide heavy-duty shredder, steel belt conveyors, a pyrolytic incinerator, a 500-HP waste heat steam with a 300-HP backup hot water boiler and an absorption chiller.** In operation, waste material is loaded into 42 cu. ft. containers at four sites throughout Houston and trucked to the incinerator. The entire system is designed to operate without human intervention once a waste container is rigged to the infeed conveyor. The contents of the containers are hydraulically ejected onto the

steel conveyor belt. The waste moves slowly along the belt to the heavy-duty BloApCo shredder where the material is efficiently reduced to easily burned pieces through BloApCo's patented "**Pierce-and-Tear**" action.

Following the shredder, the material is batched and fed onto a second conveyor which feeds the incinerator. The scrap is burned in two stages, reaching a final temperature of about 1800 to 2000 degrees F. Exhaust gases from the incinerator are routed to the 500-HP boiler. This boiler also is connected to the chiller which air conditions the main facility. Operating around the clock, the system handles approximately 12 tons/day of general manufacturing and office waste. With the combined disposal and energy savings, it was projected that the the system would pay for itself within 3 1/2 years.

Compaq Computer Corporation of Houston, Texas