

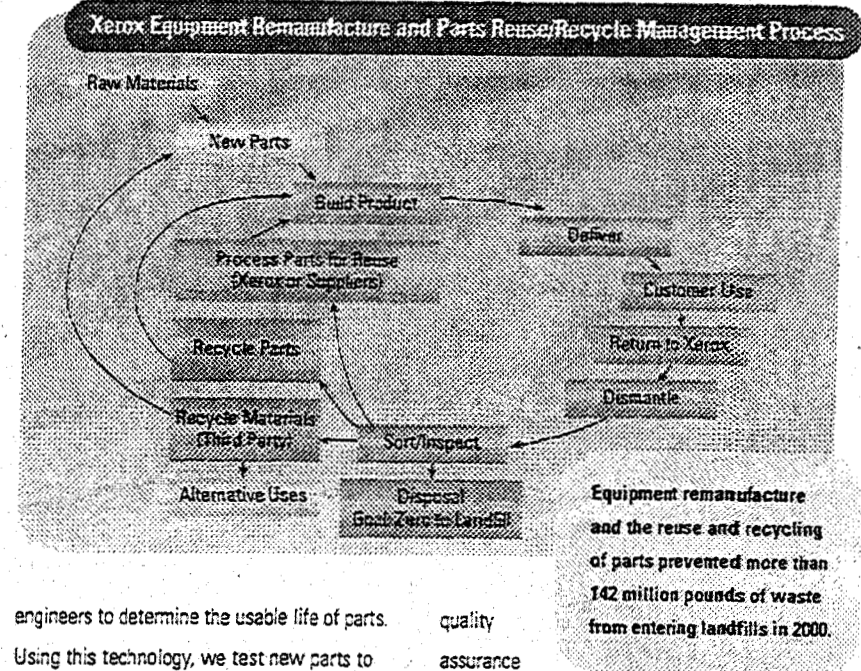
Waste-Free Product Goal:

Efficient Use of Materials and Energy

Xerox Equipment Remanufacture and Parts Reuse

Xerox formalized its commitment to taking back end-of-life equipment from customers in the early 1990s, establishing an equipment remanufacture and parts reuse/recycle process that forms the foundation of our Waste-Free program. By building the concepts of durability, easy disassembly, reuse and recycling into the earliest stages of product design, Xerox has been able to maximize the end-of-life potential of products and components. Ninety percent of Xerox-designed equipment is developed with remanufacturing in mind. Reused/recycled parts can comprise up to 90% of a remanufactured machine's weight. Our approach to managing products at end-of-life translates into significant environmental and financial benefits. Equipment remanufacture and the reuse and recycling of parts prevented more than 142 million pounds of waste from entering landfills in 2000. Parts reuse and recycling has substantially reduced the amount of raw materials and energy needed to manufacture equipment, enabling cost savings of several hundred million dollars a year.

Xerox's unique processes and technologies ensure that all of our products, regardless of reused/recycled part content, meet the same specifications for performance, appearance, quality and reliability. Signature Analysis is one such technology that enables Xerox



engineers to determine the usable life of parts. Using this technology, we test new parts to determine a 'signature' – an acceptable range for the noise, heat or vibration the parts produce while in use. We then test the same characteristics in parts from returned equipment. Only those parts whose signatures are consistent with those of newly-built parts are approved and processed for reuse.

The processes of equipment remanufacture and parts reuse/recycling are fully integrated into Xerox manufacturing operations. Products with reused/recycled parts are built on the same manufacturing lines as newly manufactured equipment, and they undergo the same rigorous

quality assurance tests. As a result, all Xerox products – newly manufactured and remanufactured – carry the same Xerox guarantees, warranties and service agreements.

Moving forward, Xerox will look for ways to further enhance the potential of end-of-life equipment, extending our research in common designs and modular product architectures that offer maximum flexibility for reuse of components. Partnerships with universities and research institutes worldwide will continue to advance the science of remanufacturing.



Xerox employees in Venray, Netherlands are contributing expertise in predicting the life span of components to a multi-year remanufacturing study funded by the European Union.