

Xerography Technologies: the Core of Fuji Xerox

Fuji Xerox boasts leading-edge xerography technologies that realize high-speed, high-image-quality printing. Based on such fundamental capabilities, and assigning maximum value to harmony with the environment, we have developed products through the utilization of energy-saving and resource-recycling technologies.



Unparalleled, Unique Xerography Technologies

In 1962, Fuji Xerox became the first company in Japan to release a copy machine for use with plain paper. Since then, we have developed unique document processing technologies. These technological developments included the application of digital technologies to copy machines, which has, in turn, enabled us to create multifunction and color devices. Through these developments, Fuji Xerox has steadily accumulated advanced xerography technologies that realize high-speed, high-quality printing.

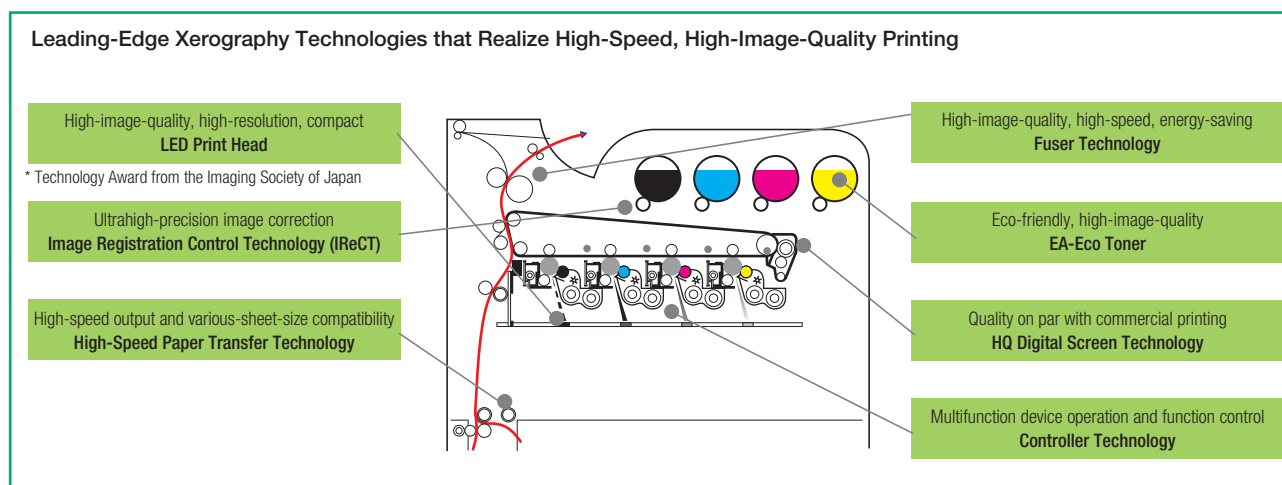
One of the core technologies that Fuji Xerox has is digital imaging technology. By pursuing the mastery of this technology, we have achieved high-image-quality and high-resolution printing capability, regardless of whether it is monochrome or color. Also, the most recent example of our unique technologies is exposure control technology. This technology applies a light-emitting diode (LED) print head that uses a Fuji Xerox's proprietary, self-scanning, light-emitting device (SLED). In addition, we have the EA-Eco Toner as an example of recent products based on our unique technologies. This toner features both lower fusing temperatures than conventional toners, which enables up to a 40% reduction in power consumption at the moment of fusing, and high-gloss reproducibility. In addition to these

hardware technologies, Fuji Xerox has a range of sophisticated software technologies that control various operations of multifunction devices. The combination of the hardware and software technologies has been made possible through extensive research over many years and long-nurtured knowledge, underpinning the superior competitiveness of Fuji Xerox products.

Meanwhile, Fuji Xerox has formulated an "Ecology & Safety Vision." Aiming to accomplish this vision, we are leveraging our unparalleled technologies to promote the development of high-performance products that can be used safely and contribute to a reduction of their environmental impact.

Keeping a Comprehensive Perspective in Refining Environmental Technologies

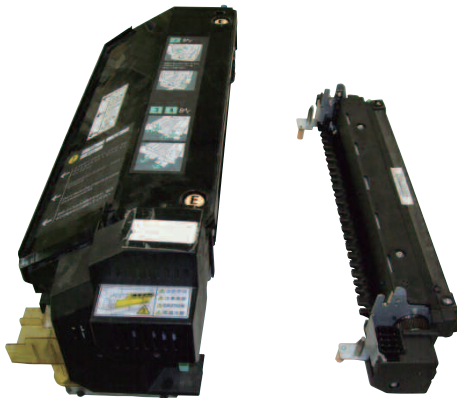
Aiming to contribute to global warming prevention, Fuji Xerox established a long-range power-saving plan in 1997, which called for cutting the electric power consumption of its devices in half by 2005. Since then, Fuji Xerox has accelerated its R&D efforts on energy-saving technologies to develop products that demonstrate unrivalled energy-saving performance. Accordingly, Fuji Xerox has endeavored to achieve a significant reduction in the total power consump-



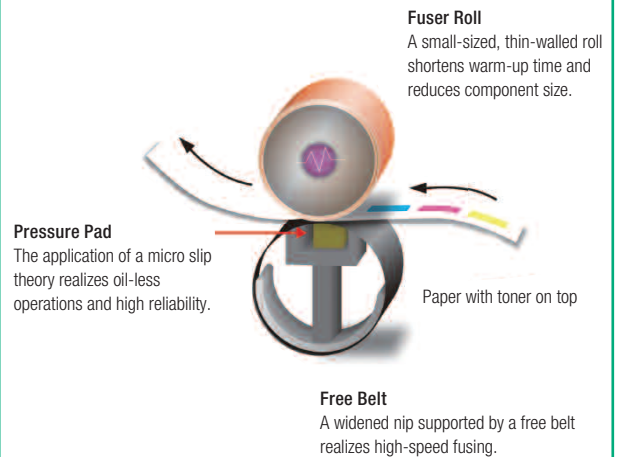
Fuji Xerox's Other Major Environmental Technologies

Compact Design Technology	Realizes color devices as compact as monochrome devices, with a smaller chassis, featuring a high-image-quality, energy-saving LED print head and short paper-path technology
Material Design Technology	Applied biomass plastic materials—ahead of competitors—certified by the Biomass Plastics Mark, while constantly advancing other industry-first initiatives, including the use of halogen-free plastic materials

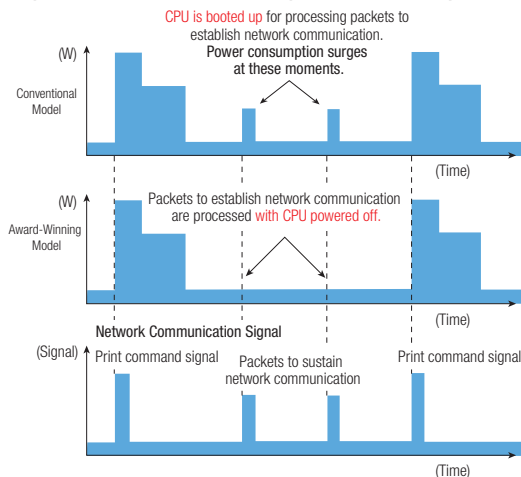
Free Belt Nip Fuser (right) and Conventional Roller Fuser



Cross-Section Structure of Free Belt Nip Fuser



Comparison of Power Consumption in the Sleep Mode



tion of the products used by its customers by halving per-device power consumption.

This effort began with thoroughly understanding our own products. Specifically, we analyzed the power consumption of our products' individual functions and components while identifying the peak power consumption of these functions and components in each operating mode. Then, once we produced material results by leveling power consumption, cutting unnecessary power supply and improving components in line with the outcome of the analyses, we moved to the next step: developing brand-new technologies and introducing newly designed circuits. Through these activities, Fuji Xerox has gradually reinforced and expanded the portfolio of its energy-saving technologies.

To further reduce the power consumption of Fuji Xerox products, we have introduced an energy-saving method to more closely link hardware and software, while developing an eco-friendly chemical toner, EA-Eco Toner, which boasts lower fusing temperatures. Also, in toner production, we have adopted a new energy-saving chemical synthesis method, adding to our comprehensive efforts to reduce the Company's environmental burden.

A major example of energy-saving technologies that have been applied in our products is the **Free Belt Nip Fuser (FBNF) technology**. The fusing process that melts toner using heat and fixes melted toner onto paper with pressure is the most power-intensive of all copying and printing processes due to the need to keep the fusing component at a high temperature. We took two specific approaches to reduce power consumption during the fusing process. First, we made the fusing roller thinner to cut power consumption in the warm-up stage, and secondly, we expanded the contact area between the roller and paper to improve heat conduction and thereby enable fusing at a lower temperature. Moreover, we improved the energy efficiency of our products in the sleep mode. Specifically, a new function was introduced to automatically respond to print and other commands sent via network even when the CPU of the printer is powered off. This function allows the CPU to save unnecessary communications but enables the printer to sustain network communications, thereby significantly cutting the power consumption of the printer in the sleep mode.

As these and other activities have been highly acknowledged, Fuji Xerox has become the first company in the industry to win prizes for 10 consecutive years, from 1999 on, at the Energy Conservation Prize hosted by the Ministry of Economy, Trade and Industry (METI). Also, ahead of its rivals in the multifunction-device and printer industry, Fuji Xerox has received a prize at the Eco Products Awards sponsored by the Eco Products Awards Promotion Council.

Fuji Xerox is committed to meeting the needs of customers who are seeking to be more environment-friendly in their operations. More specifically, Fuji Xerox is determined to accelerate solutions that enable an optimal balance between efficiency and environmental impact reduction in all business processes in all customers' offices.