

Manufacturing

Based on the approach of local design, production, and usage of its products, Fuji Electric positions Japanese production bases as the mother factories for global manufacturing operations, and has two other hubs in China and Asia. To further enhance our manufacturing capabilities, we have focused on our frontline capabilities, including reforms of supply chains and materials procurement. Going forward, we will also work to strengthen our capabilities in terms of production technology and human resources, with the view to honing our competitiveness further.

Three Pillars Supporting Manufacturing

On-Site Capabilities

The ability to enhance skills required at manufacturing sites, and to achieve benefits such as improved productivity and reduced costs



Manufacturing Technology

The ability to develop and apply manufacturing methods, production processes, and production equipment to achieve customer satisfaction

Human Resource Development

The handing down of our accumulated technologies and skills that are necessary for innovation in manufacturing

Major Initiatives in Fiscal 2012

Strengthening Production Technology Capabilities

We have gathered core production technology personnel at the Facility Technology Center in the Saitama area to develop facility technologies as well as core fundamental technologies. The achievements were applied to actual production facilities and production process improvements in coordination with various Fuji Electric factories. Specifically, as measures to automate production facilities and

lines, we have taken steps to enhance the facility technologies of manufacturing sites by converting tasks and original ideas at these manufacturing sites into simple automated equipment. Harnessing factory automation technology, we are also working on such initiatives as developing automated lines that can support manufacturing of multiple product models in varying quantities.

Simple Automation in Assembly (Otagawa Factory, Fuji Electric FA Components & Systems Co., Ltd.)

We have developed simple automated systems that automate tasks in the breaker assembly process, such as tightening screws and affixing nameplates, at a low cost. We have made screw tightening tasks more efficient by having workers supply the screws and machines perform the screw tightening process. Going forward, we will expand these production technologies globally by applying this system to factories overseas.



Automated screw tightening system

Horizontal Development to Overseas Production Bases (Mie Factory to Dalian Fuji Bingshan Vending Machine Co., Ltd.)

Eyeing expansion in the vending machine business in the Chinese market, we have fully remodeled our production line into one that supports the production of multiple product models. When remodeling the line, employees of Dalian Fuji Bingshan Vending Machine Co., Ltd. trained for about a month at the Mie Factory, a mother plant, to obtain expertise in upgrading production lines before completing the remodeling.



Production line at Dalian Fuji Bingshan Vending Machine Co., Ltd.

Bolstering Human Resource Development

To strengthen manufacturing capabilities, which are fundamental to manufacturers, our factories in Japan are working to amass technologies and expertise in-house while nurturing production engineers and technicians who can succeed at overseas manufacturing bases.

We have made various training programs compulsory, including level-based training on fundamental technologies needed for manufacturing as well as basic training on quality control (QC), industrial engineering (IE), and other subjects for young employees in their second year. Furthermore, we conducted practical training on basic technical skills at the Technical Training Center for new employees, some of whom went on to participate in the National Skills Competition.

Manufacturing Training System

	Engineers	Technicians	
Managers	Management training for managers and senior managers		
Regular employees	Practical training on core technologies (by level), 24 courses in total		Supervisor training (by level) Assistant Manager Supervisor Leader
	Application	Manufacturing technologies	
Young employees/new hires	Basic training	Manufacturing technologies	Management technologies
	Basic technology training (IE, QC, VE), 2nd year	New technician training (1 year)	National Skills Competition (3 years)

Learning Everything from Basic to Specialist Skills (Technical Training Center, Saitama)

In technical training for new employees, trainees learn the fundamentals of manufacturing through a year-long dormitory-based training curriculum. From April to August, new employees learn basic tasks such as soldering and tightening screws. From September, the trainees acquire specialist knowledge in electronic devices, machining and other fields. Among the total of approximately 1,800 hours of education and training received, the trainees undergo 1,400 hours of certified training toward the final goal of obtaining qualification. The goal is to train employees who can start contributing immediately after they are assigned to their work stations.



An induction ceremony at the Technical Training Center

Taking on the Challenge of the National Skills Competition

Fuji Electric grooms certain employees to participate in the National Skills Competition, which is a technical skills contest for young people (aged 23 or under, in principle). Through this initiative, the Company seeks to transfer the skills of outstanding technicians to younger employees. In the 50th National Skills Competition held in October 2012, three Fuji Electric employees participated in the die-cutting category. All three received a fighting-spirit award for their work.



Young people compete at the National Skills Competition

Voice

Comment from an Employee



Katsumi Santo
Technical Training Center
Technical and Skills Training Department
Facility Technology Center
Production and Procurement Group
Fuji Electric Co., Ltd.

Using Skills to Interact with the Local Community

Saitama Prefecture, Japan, holds a Manufacturing Fair every year as an initiative to energize local industry. As part of its contribution to the community, Fuji Electric sends trainees from the Technical Training Center to participate in the fair. In 2012, the trainees held an event where they produced and sold handmade key chains made of metallic materials.

The event was managed entirely by the trainees, and provided them with a good opportunity to convey the challenges and appeal of skilled manufacturing to local children.



Trainees helped elementary school children make key chains