DAIFUKU CO., LTD.

http://www.daifuku.co.jp/english/

Environmental Report 2002

DAIFUKU

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Preface

This Environmental Report is to introduce Daifuku's performance related to global environment protection through Daifuku's line of business activities to supply distribution system and equipment, for better communication with the customers, shareholders, and all other stakeholders. This version of the report is the first one for the whole organization of Daifuku. From the next year on, this will be issued once every year.

Daifuku is also providing various other data and information on the issues of environmental aspects and activities in its website (http://www.daifuku.co.jp/english/). Please make a visit to it for review any time as you like. Your comments on Daifuku's activities, products, and report or website itself for their improvement would be highly appreciated.

Scope of this report

Period: for one year from April 2001 to March 2002
Offices and Works: Osaka Head Office, Tokyo Head Office, Chubu Branch Office, Shiga Works and Komaki Works
Note: all numeric values in this report are the total of Shiga and Komaki Works unless otherwise noted.

Contact:
Daifuku Co., Ltd.
Public Relations Division
Head Office: 3-2-11 Miteijima, Nishiyodogawa-ku, Osaka
555-0012 Japan
Tel: +81-6-6476-2550 Fax: +81-6-6476-2556

Tokyo Head Office: 2-14-5, Shiba, Minato-ku, Tokyo
105-0014 Japan
Tel: +81-3-3456-2245 Fax: +81-3-3456-2262

E-mail: daifuku-world_others@ha.daifuku.co.jp

For the Century of Environment

The 21st Century is called "the Century of Environment". The awareness on environment is increasing more and more on the global scale, and the efforts in the projects to establish the society for environment protection and resource recycling are being exerted and developed seriously in a various manners at most countries in the world.

At Daifuku, all employees are trying their best to contribute to this issue through the company business, in addition to fulfilling the responsibilities as a manufacturing company. We Daifuku take it as our mission to develop the activities for environment protection, not only for compliance with applicable laws and regulations but also for contribution to the "Sustainable development" of human being, society, and economy.

"Sustainable development" is not to pursue comfort and convenience of individual companies and persons, but to take action considering the overall optimization of human being, society, and economy. In the field of distribution, Supply Chain Management (SCM) has become actively adopted for the optimization of all stages within the business group or throughout the whole distribution channel covering production, wholesale, retailing and collection. With this, the loss in company business activities such as excessive inventory, and hence environmental impacts can be reduced. Therefore, Daifuku is developing the SCM program as the measures for revolution in distribution business. Besides SCM, Daifuku is considering various measures such as recycling distribution of scrapped home electric appliances, ecological distribution for minimization or elimination of packaging materials, and shared shipment system for reduction of air pollution by exhaust gas from transportation vehicles. It is Daifuku's management principle to contribute to the development of industry by supplying the optimum and best material handling system and equipment. The consideration of environmental issues would be the keys for development of business and prosperity of industry, I believe.

Our Shiga Works and Komaki Works became the ISO 14001 certificate holders in 1999. Now Daifuku is going to expand the scope of certification to the whole company by the year of 2003, covering all non-production functions (including administration in Head Office) to strengthen the management system as the core of environmental management. Through the activities for ISO 14001 certification, we are impressing our mission to each individual employee and satisfy all stakeholders also in environmental aspects.

This "Environment Report 2002" is the summary of our environment protection activities in 2001 introducing our attitude and performance in environmental issues. It would be appreciated if you would let us have your comments if any on our future activities.

November 2002

K. Takeuchi

Katsumi Takeuchi
President of Daifuku Co., Ltd.

Relationship between Daifuku Business and Environment

The flowchart below shows the outline of Daifuku's business activities and their environmental impacts. Daifuku is exerting efforts to reduce the environmental impacts of its own activities while reducing environmental impacts of the total society by comprehensively supporting logistics in order to contribute to the establishment of the resource recycling society.

*1 CO_2: Carbon dioxide
*2 Nox: Nitrogen oxides
*3 Sox: Sulfur oxides
*4 COD: Chemical oxygen demand
*5 BOD: Biochemical oxygen demand

Divisions

■AFA Division
Development, Production and Sales of Production Line System mainly for Automotive Industry

■FA&DA Division
Development, Production and Sales of Material Handling System and Equipment mainly for Distribution Industry

■eFA Division
Development, Production and Sales of Material Handling System and Equipment mainly for Semiconductor and Liquid Crystal Industry

■Car-Washing Machine Division
Development and Production of Car-Washing Machine. (Sales is by a subsidiary company for sales)

■Special Equipment Division
Development, Production and Sales of Special Equipment such as Bowling Equipment

■Production Control Division
Procurement Control, Production Control and Environmental Management Promotion of the whole company

IN PUT

- Electric Power
- LPG and City Gas
- Heavy Oil, Light Oil and Gasoline
- Water
- Paper
- Chemicals

Integrated Production System






Consulting → Planning and Engineering → Designing → Manufacturing → Installation → After-sales Service

TOTAL SUPPORT for LOGISTICS

For Sustainable Resource Recycling Society

Various Products






- Storage
- Conveying
- Sorting and Picking
- MH Equipment
- Information System
- Others

OUT PUT

- Waste
- Recycled Materials
- Waste Water
- Noise
- Vibration
- CO_2*1
- NOx*2
- SOx*3
- COD*4・BOD*5

Daifuku Products with Consideration of Environment

Daifuku is exercising efforts to prove products considerate of overall global environmental issues by developing or improving the products for environment protection. These include the energy saving consideration in designing, recyclability of products, containers for collection of scrapped home electric appliances and refuses, and automated warehouse for efficient inventory control.

Products with Consideration of Energy Saving

Daifuku is focusing on the energy saving consideration in designing the transportation and storage system. For example, in designing the stacker crane "S/R Machine H series" for automated warehouse, Daifuku achieved the energy saving by separating the material carriage and maintenance operator's cab, and enabling to move up and down only carriages upon automated operation. The automatic guided vehicle, "Magic Vehicle" has been designed to save energy by quick automated power recharging and consideration for efficient parts exchanging and water feeding for maintenance.

"Magic Vehicle" having Good Energy Saving Device Award

"S/R Machine H series" having Good Energy Saving Device Award

Equipment and Devices for Environment Protection

Daifuku Mesh Box Pallet, "Palletainer", a returnable container serves for reduction of packing and packaging materials. This pallet can be stacked for the efficient use of space.

Daifuku is supplying also the products for collecting and recycling the scrapped home electric appliances and collection of home refuse. The Containers for collection of scrapped electric appliances has considerably shortened the loading and transportation time by means of unit loading of the electric appliances. In the field of home refuse collection, Daifuku is supplying the refuse containing cage, "Gomi-Clean" preventing the refuse from being pecked and littered by crows and cats, to keep the cleanness and beauty of surrounding area.

Mesh box pallet, "Palletainer"

Container for unit loading of scrapped home electric appliances

Refuse containing cage, "Gomi-Clean"

In Case of Matsushita Electric Industrial Co., Ltd.

Adoption of 5,000 Containers for collection of scrapped home electric appliances

Matsushita Electric Industrial Co., Ltd. (Head Office: Kadoma City, Osaka) has adopted the container dedicated to collection of scrapped home electric appliances jointly with 18 other home electric appliance manufacturers, and achieved a great success in collecting for recycling of scrapped home electric appliances.

Matsushita, who is contacting the collection to big forwarding companies, has accomplished high efficiency transportation by means of 5,000 containers. It has shortened the time required for loading and unloading to one eighth of that needed in the past because all the work can be done by one forklift operator. As the containers can be stacked in two stories, this also contributes to the increase in storage efficiency at each designated receiving dock of factory or storage area.

Six containers can be loaded on 10 ton truck.

Containerized storage for each type of home electric appliances

In Case of Car Steel Co., Ltd.

Controlling Recyclable Parts by means of Automated Warehouse

Car Steel Co., Ltd (Head Office: Maebashi City, Gumma), scrapping used cars has been active in recycling of used car parts and tires and Freon gas collection and dissolving since its establishment in 1970. Car Steel has built a new warehouse in the site of their head office in April 2002 for full scale storage control of recyclable automotive parts and improvement of services over all similar companies. For this new warehouse, they adopted an automated warehouse for pallets, "Compact System" for storage of big automotive parts such as bumpers, doors and engines, and an automated warehouse for cases, "Pick and Stocker" for storage of such parts as rear view mirrors and lights. By the integration of stored items and their data, they successfully achieved the accuracy of storage and shipping control to such a level close to zero defects.

"Compact System" with two stacker cranes, capable for storing 472 pallets.

"Pick and Stocker" capable for storing 356 containers.

In Case of Yokosuka City Government

Preventing refuse from being scattered, using Daifuku "Gomi-Clean"

Yokosuka City Government has adopted Daifuku "Gomi-Clean" preventing the home refuse at their depots from being pecked and littered by crows and cats, to keep the cleanness and beauty of surrounding area.

The refuse bags from each house are put into "Gomi-Clean", treated for rust prevention, with fine mesh screen and cover. This prevents cats and crows from biting open the refuse bags. In "Gomi-Clean" design, the top and front can be opened so that anyone can use it, whether they are tall or short. When it is not used, it can be folded to make an open space on the road.

"Gomi-Clean" contributes to keep the street clean.

"Gomi-Clean" can be folded.

COLUMN "Freight Truck Allocation Support System"

Shortened processing time to only 10 minutes. Reduced the number of truck from 50 to 45.

One transportation company, operating total distribution business including warehouses, distribution enters, at 37 franchises in Japan and China, has adopted the Freight Truck Allocation Support System based on map information.

By this system, the truck allocation processing time that required 2 or 3 hours even for the experienced operators shortened to only 10 minutes. Also it enabled to simulate for any person to instantly simulate the truck allocation of 500 per day in varying conditions such as the delivery time, truck loading capacity, car type, cargo receiving, and allocation of direct shipping according to cargo quantity.

In addition to reducing the time and labor for truck allocation through the automated process, the efficiency of loading was improved and resulted in the reduction of the number of trucks from 50 to 45.

Screen Display Example of "Freight Truck Allocation Support System"

Environmental Management Policy

Daifuku is strengthening its environmental management system and planning to get certified to ISO 14001 for the whole organization in the fiscal year of 2003. Also started the environmental accounting system since 2001 for continual improvement of the environmental management system.

Environmental Management Policy

Principles

Daifuku, intending to be a global organization, has recognized that it is one of the most important objectives of the human being to protect the global environment. With this, Daifuku will give consideration to the saving of resources and prevention of contamination of global environment in every aspect in its development and production of material handling system equipment.

Management Policy

(1) Daifuku will proceed in its continual environmental protection activities by means of its special task force in production function and ISO steering committee meetings.

(2) Daifuku will promote the environmental protection based on the environmental objectives and targets established after the appropriate assessment of environmental effects, for the continual improvement of management system and its performance.

(3) Daifuku will establish its own standards complying with all applicable laws, codes and regulations for environmental protection.

(4) Daifuku will take environmental protection into consideration at every stage of the design, development, production, use and disposal of all products it provides.

(5) Daifuku will put the priority in the following environmental aspects in its business activities:
- efficient use of energy at all factories,
- waste reduction,
- prevention of contamination by wastes from its production activities.

(6) Daifuku will continue cooperation and support to the subvendors and communication with local community for collaboration.

This environmental management policy will be communicated not only to all Daifuku employees and all subvendors but also be given access to the general public.

Issued on January 7, 1999
Revised on October 1, 2002

Environmental Objectives, Targets and Performance

In the year of 2001, Daifuku has implemented the environmental protection activities mainly at Shiga Works and Komaki Works, which were certified to ISO 14001. From now, these activities are going to be extended to the whole company including non-production areas for the improvement of environmental protection. The following tables show the status of performance and results of self-assessment at Shiga and Komaki Works:

At Shiga Works

	Objective / Target(1998 through 2003)	Objective for 2001	Result in 2001	See
1. Environmental Protection	Strengthening the control of waste	For water pollution	○	➡P.20
		For air pollution	○	➡P.21
		For soil pollution	○	➡P.21
		Compliance with PRTR	○	➡P.20
2. Reduction of Energy Use	Reduction of Utilities Energy (Power and LPG) (By 20% of 1998 by 2003)	Saving power consumption for compressors Saving power consumption for lighting by 15% of 1998	○	➡P.16
		Reduction of LPG consumption By 15% of 1998	○	➡P.17
3. Waste reduction	Reduction of waste from utilities (general refuse and industrial refuse) by 60% of 1998, by 2003.	50% reduction of industrial waste	△	➡P.14
	(Recycling of waste paper is included as the sub-objective.)	Recycling 40% of waste high grade paper	○	➡P.15
		Reduction of high grade paper by 5% of that used in 2000	×	➡P.15
4. Indirect Effects	"Green Procurement" and cooperation and support to subvendors	Implementation of cooperation and support to subvendors	△	➡P.19
	Reduction of packing and packaging materials for procured items	Planning reduction of packing and packaging materials	△	➡P.19
5. Product Assessment	Reduction of product weight, and reduction of the number of parts (By 10% of 1998 by 2003)	Reduction of weight of materials, and reduction of the number of parts	△	➡P.12
	Reduction of packing and packaging materials for products (By 20% of 1998 by 2003)	With the support by Production function	×	➡P.12
	Reduction of power to be used for operation of products (By 10% of 1998 by 2003)	Reduction of number and capacity of drive motors to be used	△	➡P.12
	Reduction of waste and noise from products	Planning and implementation of reduction	△	➡P.20
	Improvement of recyclability of products upon disposal (By 10% of 1998 by 2003)	Analysis of materials to be used	△	➡P.13
	Improvement of indication of names of non-ferrous materials (By 10% of 1998 by 2003)	Analysis of materials to be used	△	➡P.13
		Indication of names of plastic resin being used	△	➡P.13

At Komaki Works

	Objective / Target (2001 through 2004)	Objective for 2001	Result in 2001	See
1. R&D for reduction of environmental impact	Providing environment oriented products	Reduction of environmental impact	○	➡P.12
	Energy saving products	Development of energy saving type products	○	➡P.12
	Selection of materials for recyclability	Improvement of recyclability	○	➡P.13
	Selection of materials for resource protection	Resource protection	△	➡P.12
2. Reduction of environmental impact	Reduction of energy use	Reduction of electric power consumption at factory (by 3% of 2000)	○	➡P.16
	Reduction of waste (by 50% of 2000)	Reduction of waste in weight	○	➡P.17
		By 20% of 2000	○	➡P.17
		Increasing recyclable items	○	➡P.15
	Improvement of recycling of copying paper (50% higher than 2000)	Promoting paper recycling (by 20% of 2000)	○	➡P.15
	Reduction of exhaust gas at the time of idling stop of vehicles	Idling stop of cars	○	➡P.18
3. Prevention of Contamination	Prevention of soil contamination by wastes (such as waste oil and waste water)	Prevention of water and soil pollution, including prevention of oil leakage from MC pit	○	➡P.20
4. Social activities for reduction of environmental impact	Cooperation and support to subvendors for "green procurement"	Implementation of subvendors support plans at each Division	△	➡P.19
	Collaboration with local community	More active participation in the local community activities	○	➡P.23
		Implementation of environment related events	○	➡P.22

○ Accomplished, △ Fairly accomplished, × Not accomplished yet

Environmental Accounting

In order to promote the environmental protection activities together with the continuous development of business of the organization, it is desirable to grasp the investment costs and benefit related to such activities. For that purpose, Daifuku has adopted the environmental accounting system to be used as the measurement of its performance since 2001.

About the Environmental Accounting

In order to quantitatively grasp the costs and benefits related to environmental protection activities, Daifuku started the accounting system in accordance with "the Guideline for Environmental Accounting System for Machinery Industry" based on the guidance by the Ministry of Environment of Japanese government.

The table on the right is the data on the year of 2001 for Shiga and Komaki Works. The total cost is about Yen 250,000,000. As Shiga Works is adjacent to Lake Biwa, the costs for waste water treatment facilities and their running costs became so high as 37% of the total cost. The benefit turned out to be about Yen 56,000,000. The benefit due to the development of new products is not included in this report because it was quite difficult to calculate it accurately at the present time.

The data on the result of this year will be used to improve the accounting system and measurement in future. We are going to devise also some good method for assessment of benefit.

Environmental Accounting Report for the fiscal year of 2001 for Shiga and Komaki Works (for the period from April 1, 2001 to March 31, 2002)

Costs for Environmental Protection Activities

Unit: 1,000 yen

Type	Activities	Cost
Reduction of Environmental Impact in Production Activities	- Waste water treatment facilities and their operation - Energy saving activities - Exchanging Filters for Coating - Oil Mat	94,210
For Industrial Waste	- Disposal of industrial waste - Collection of waste, including incineration and incinerator depreciation	43,276
For Materials fit for environmental protection	- Reuse of hard-board paper	424
Development of Products having less environmental impact	- Development - Analysis and measurement of Energy Saving Function of HID2	46,840
Recycling of Daifuku products	- Collection of used packaging materials - Collection of car washers	5,863
Emergency preparedness	- Soil conditioning at the time of emergency landing of Cessna light plane	11,332
Environmental protection at offices	- Energy-saving lighting equipment - House refuse disposal	3,771
Consideration for Overseas Operation		0
Implementation of Environmental Management	- Registration audits and surveillance - Internal audits - Training and Education of employees	38,051
Collaboration with communities	- Participation in the Environmental Protection Association - Public relation activities	10,322
Total		254,089

Economic Benefit

Unit: 1,000 yen

Type	Benefit	Amount
Saleable materials	Sales profit of ferrous and non-ferrous scrap materials, and waste high grade paper	5,386
Energy saving	Reduction of electric and heat energy	43,553
Cogeneration	CFA Air conditioning (in terms of energy)	7,000
Total		55,939

* The cogeneration costs was calculated in terms of reusable waste heat energy in the thermal power generation.

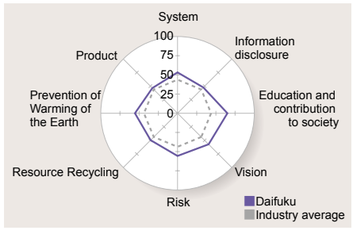
TOPICS Environmental Management Scale

Daifuku have got the higher scores in every aspect than the average of the industry.

According to the announcement of Nippon Keizai Shimbun (the biggest economic journal press in Japan), Daifuku was appraised as the 277th place among with the high score of 540 and it was higher than the average scores of the material handling and distribution industry in Japan in every aspect. The score was high especially in the education and contribution to society.

While the consciousness in environmental management is enhancing in total society, Daifuku is assessing and managing the management risk in advance for more practical environmental protection with more active implementation of environmental management.

This announcement is based on the research of the 2,400 top rank manufacturing companies in Japan by means of questionnaire mailing, of which 820 meaningful responses were evaluated and scored in eight items:



	Total score	System	Information disclosure	Education and contribution to society	Vision	Risk	Resource Recycling	Prevention of Warming of the Earth	Product
Daifuku	540	51	49	63	59	55	50	57	44
Average		46	43	48	45	45	45	45	44

Status of Environmental Management System

Daifuku has implemented the environmental management system as the bases for its environmental protection activities to identify and assess the impacts and results of performance for further development of their effectiveness. This will be expanded and strengthened by establishing "Total Daifuku Environmental Management System" covering also the non-manufacturing functions while developing its logistic system business activities.

Environmental Management System

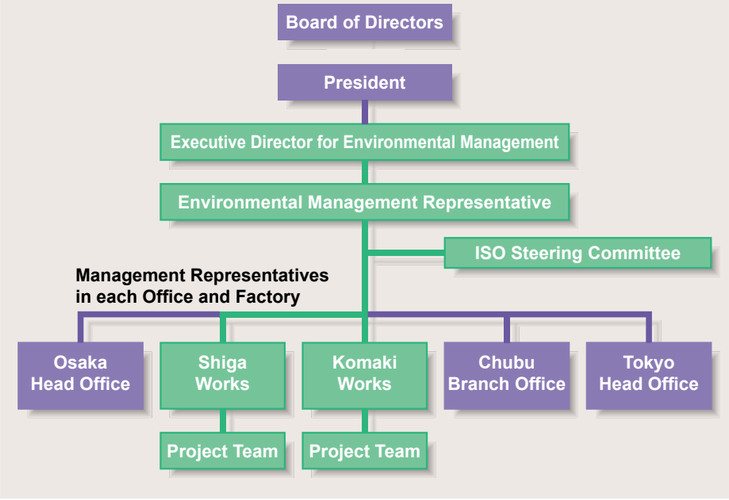
In the year of 2001, the environmental management system was operated at Komaki and Shiga Works already certified to ISO 14001 by an ISO registrar. It was operated under the ISO Steering Committee consisting of environmental management representatives from each Department and the project team as the core organization. The management review has been held every 6 months for continual improvement by evaluating the performance of activity plans of each Department and project team.

Each project team consists of subgroups for design and development, waste disposal, energy saving, "green" procurement, PRTR, and statistical research, for the cross-functional development of the environmental management.

In 2003, Osaka Head Office, Tokyo Head Office, and Chubu Branch are to be added to this system for the whole company environmental management system under the President as the top authority.

Organization

Total Daifuku Environmental Management System for 2003
(■shows the areas already operating the management system.)



Environmental Management Audits

In order to verify the adequacy of the management system, the compliance with laws and regulations, and the effectiveness of implementation of the management system, the internal audits are conducted periodically, besides the external audits by the third party registrar.

In the internal audits, the management system implementation, the result or progress status of plans for accomplishment of objectives and targets in addition to the compliance with the applicable laws and regulations are being checked, and if any nonconformity is identified, the audited area shall take the corrective action. The results of the corrective action shall be re-audited by the auditors as the follow-up action.

The results of internal audits are to be reported for the management review and followed up for the corrective action.

Management Review

Status of ISO Certification

Komaki Works and Shiga Works have been certified to the International Environmental Management Standard ISO 14001 in 1999 for their environmental management system implementation. Both of them are intending the continual improvement of environmental management performance by spiraling up by repeating the P-D-C-A cycle in planning, implementing, checking, and improving the system to their respective environmental management policy, objectives and targets.

In 2002, the systems of Komaki and Shiga have been integrated. In 2003, the management system will be expanded to all non-production functions in Osaka Head Office, Tokyo Head Office and Chubu Branch Office for the "Total Daifuku Environmental Management System."

At Komaki and Shiga Works

■Komaki Works (Certified to ISO 14001 in February 1999)

Stimulation of Environmental Protection Activities related to Local Community

Isao Osawa, Senior Executive Director and Komaki Works General Manager

In order to ensure continuous development of the enterprise, the communication with society is indispensable as well as the positive promotion of environment protection activities. Therefore, Komaki Works has established the policy to implement the activities to reduce the environmental impact extensively, while complying with the laws and regulations related to environmental pollution prevention and participating in the local environmental activities positively.

In February 1999 Komaki Works got certified to ISO 14001 Environmental Management System Standard that is considered as the tool for making our environmental activities substantial, as the first runner among all organizations in Daifuku Co., Ltd. Specifically, we set up the objectives to reduce the energy consumption (by 3% from the previous year) as one of the means for prevention of global warming. This objective was achieved consecutively from 1999 through 2001. For the reduction of waste from our factory, we are exerting efforts toward “zero emission” as the target. Also we are participating in “Environmental ISO Network” for the environment protection activities related to local community under the local government’s initiation.

We are planning to positively promote the product design and development taking energy saving and resource recycling into consideration for supplying products with lower environmental impacts and further develop the program toward establishment of resource recycling society.

■Outline of Komaki Works

Address: 1500 Komakihara-Shinden, Komaki-City, Aichi 485-8653, Japan
The number of Workers:
Regular employees 610
Persons from outside companies 160
Total 770
Started operation: In April 1963
Area of Site: 80,000 m^2
Building Floor Area: 55,000 m^2

■Shiga Works (Certified to ISO 14001 in November 1999)

Leaving Beautiful Lake Biwa to the Next Generation

Hihumi Katsuragi, Director and Shiga Works General Manager

It can be said that the global deterioration was brought about as the result that we human being kept pursuing more convenience and comfort in our life egoistically. As they started to call the 21st Century “the Century of Environment”, the consciousness for environment has been enhanced in the global scale, and the social responsibility of enterprises to take up the environment protection has become more critical issue.

In Shiga Prefecture, the local government started the “Mother Lake 21 Program” to recover the water quality to the level of the years in 1950’s in the coming 50 years. For leaving the beautiful Lake Biwa to the next generation, the close cooperation of the government, residents, and the enterprises in this area is important.

Shiga Works got certified to ISO 14001 in November 1999, and has been promoting the activities such as the product design and development taking environment protection into consideration, reduction of waste, increase of recycling, and energy saving. In the meantime, we have submitted the plan for mitigation of air pollution by global warming, destruction of ozone layer, and chemical materials, in accordance with the local regulations for air pollution protection.

We know this project cannot be performed overnight, but we will continue our efforts and improvement to promote the activities considering environment protection as well as the development of enterprise, in order to establish the environment protection and resource recycling society in cooperation with the government, residents, and the enterprises in this area.

■Outline of Shiga Works

Address: 1225 Nakazaiji, Hino-Cho, Gamo-Gun, Shiga 529-1692, Japan
The number of Workers:
Regular employees 820
Persons from outside companies 410
Total 1,230
Started operation: In March 1975
Area of Site: 1,250,000 m^2
Building Floor Area: 176,000 m^2

Education and Training

Shiga and Komaki Works are carrying out the training program for all employees and subvendors to enhance their awareness in environmental management for dissemination of the management program.

This program includes the job-specific and area-specific classroom training, as well as the compliance with the applicable laws and regulations.

For the internal auditors, the environmental management system and internal auditing procedures are being taught to the candidates for the consistency and uniformity of audits and professional development of internal auditors or candidates.

The training for these subjects help all the employees clearly understand specific environmental issues they are facing with in their jobs, what impact their activities can give the environment, and what laws and regulations they must comply with, for the effectiveness of their continual improvement.

■Communication with Visitors

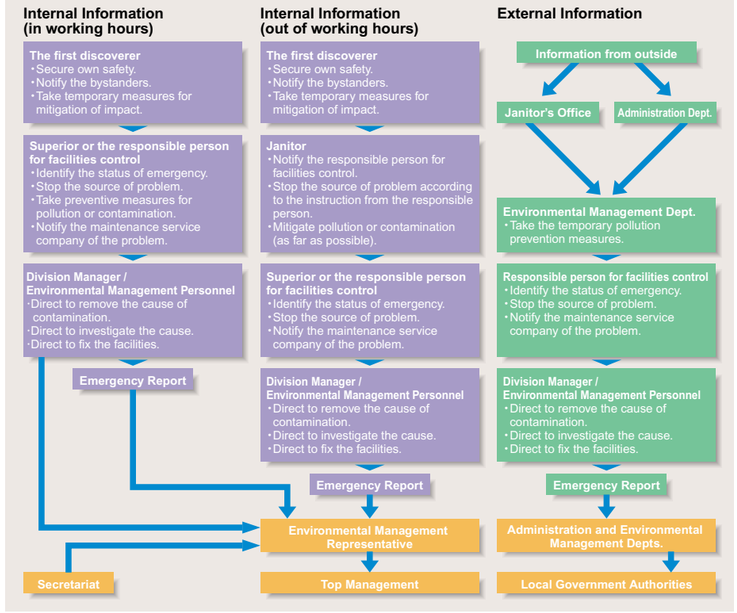
Shiga and Komaki Works have posted signboards saying “ISO Certified Factories” at their gates and the entrance of factory buildings. This is intended to let the visitors recognize that Daifuku is conscious of environmental issues. In addition, we are requesting all employees and visitors to make idling stop for their cars.

Classroom Environmental Management Training

Emergency Preparedness

To prevent and mitigate the environmental impacts by the emergency situation and its escalation, each factory is conducting the training for simulated virtual emergency situations once a year.

■Organizational channels for emergency



Simulated Training

Compliance with the environment related laws and regulations

Daifuku is in compliance with the environment related laws and regulations applicable to the environmental aspects of its activities, products and services. Daifuku is also exerting efforts by always collecting the updated information on the applicable laws and regulations to identify their requirements and reflect them correctly in Daifuku’s activities.

Challenges in Design and Development of Products

Daifuku is positively proceeding with the environmental management and its continual improvement in design and development of products taking into consideration the total life cycle of products including the environmental impact at the stage of usage and disposal by the customer, besides the impacts at the production stage at our facilities.

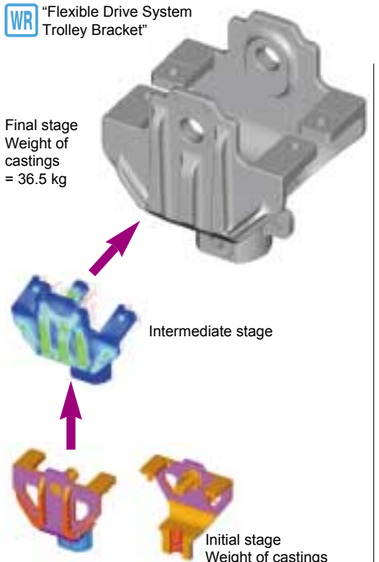
Reduction of Product Weight and Number of Parts

Daifuku is challenging the energy saving at the design and development of its products, by reducing the product weight and the number of their parts. Up to now, it was accomplished at AFA Division for the trolley bracket for the "Flexible Drive System" for automobile production line system. As its result, 10 items of parts have been integrated into one unit and the strength has also been improved.

At FA & DA Division, the "Gravity Cart" (flow through rack) was redesigned with the change of welded construction and removal of joint components. This resulted in the reduction of its weight from 2,662 kg to 2,398 and the number of parts from 3,866 to 3,057 required for the shelf for 54 pallets.

WR "Gravity Cart"

WR "Flexible Drive System Trolley Bracket"



Reduction of Number and Capacity of Motor Drive

Reduction of energy consumption at the time of product use has the great effect in the life cycle of the product. Therefore, Daifuku has given high priority to it at the stage of product design and development.

Daifuku adopted the energy saving system function for the power source board for the non-contact power supply system for automobile production line. With this, the standby power consumption was reduced to 1.1 kW from 6.0 kW in the past. Also, the power consumption of "Vertical Carousel" was reduced by 41% by inverter control, besides the reduction of its weight and number of parts.

The power consumption of the stacker crane for "Magic Sorting System" (a high capacity automated case storage system) was reduced by 30% by means of its weight reduction.

ES Monorail System with the Non-contact Power Supply System

ES "Magic Sorting System"

ES "Vertical Carousel"

WR denotes reduction of product weight and number of parts

ES denotes energy saving

Re denotes increasing recyclability

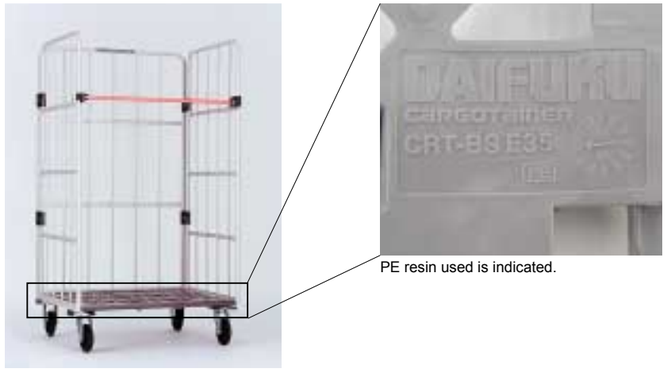
Analysis of Materials, Indication of Names of Materials

At the time of product development, the materials to be used for the product are analyzed and the type of plastic resin materials being used for the product are indicated on the product body, in order for the user to identify the material upon disposal or recycling of plastic resin materials.

In 2001, FA & DA Division and AFA Division calculated the quantities of plastic resin materials used for their products.

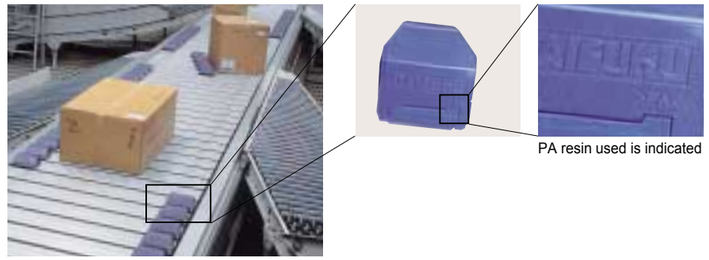
From now, this practice is going to be applied to all products.

Re "Roll Box Pallet"



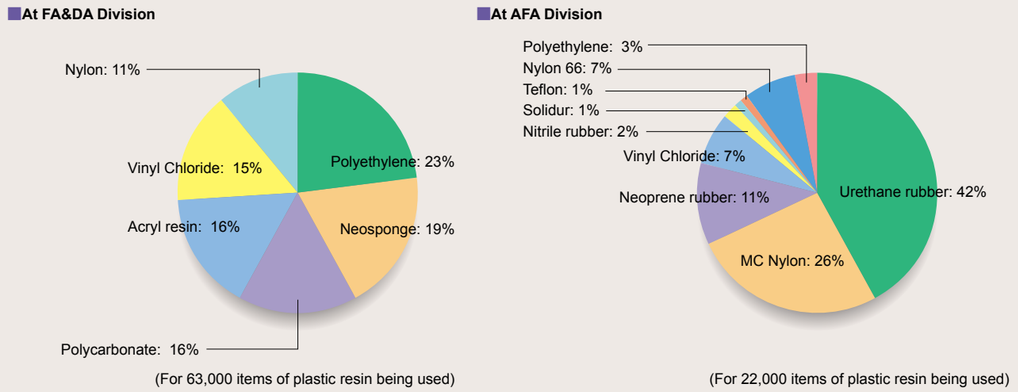
PE resin used is indicated.

Re "Jet Surfing Sorter"



PA resin used is indicated

The Quantities of Plastic Resin used for Daifuku Products (for one year from April 2001 to March 2002)



Waste Reduction

Daifuku is exerting efforts to reduce all types of waste including waste plastic resin materials, waste oil and sludge from each factory. The project team for waste reduction is promoting this activity to accomplish “Zero Emission” for the objective of 95% recycling of waste materials.

Segregated Collection of Waste

Daifuku is standardizing the containers, collection methods and collecting stations for each type of combustible refuse, incombustible refuse, and waste plastic resin materials.

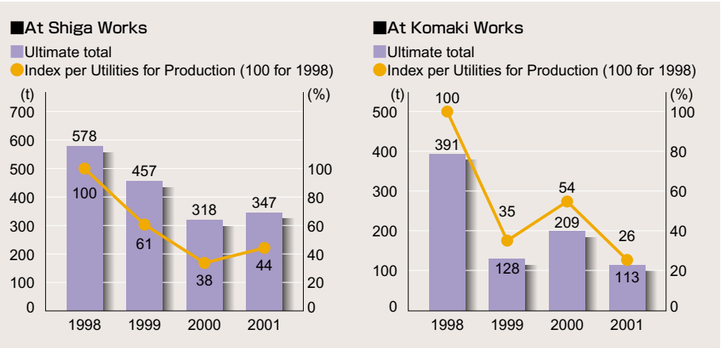
Shiga Works is collecting the refuse and waste in the following manner:

(1) Using the different containers for each type of refuse and waste.
(2) Indicating the type of refuse or waste on each container.
(3) Using sealable containers for the inflammable hazardous wastes with low flash points such as organic solvents, thinner, and alcohol, and storing them in the storage house for oils and greases after sealing.
(4) For other types of refuse and waste, using the collection and storage method authorized by the Waste Committee.

Komaki Works is collecting the refuse and waste following the similar methods to those of Shiga Works toward Zero Emission. In order to enhance the consciousness of employees and workers from outside vendors or suppliers, Komaki Works is teaching them the importance of refuse collection and its follow-up (problem identification and correction) through the signboards and classroom training. In 2001, about 680 employees and outside workers took the training for waste reduction, so that 20% of waste was reduced as compared with the year of 2000.

This effort will be continued from now on.

Volume of waste disposal to the soil (for land reclaiming, etc.)



* As Shiga Works has started the total factory cleaning campaign since 2001, the total volume of waste disposal for landfill increased by 29 tons in 2001.

Dust carts for refuse collection

COLUMN In-house Recycling of Garbage

Reduced Garbage Disposal Volume to 1/5 !

Shiga Works has installed the biological garbage disposal machine to reduce the garbage from the staff canteen being sent to the incinerator of the local city government.

The Second Canteen started its operation from October 2001 and the First Canteen from April 2002. As a result, the garbage volume was reduced to 6 ton per year from 30 ton per year, which is one fifth of the previous year. The garbage processed through the machine is recycled as the fertilizer to the plants in the site.

The garbage disposal machine at the Second Canteen

Processed garbage

Utilization as the fertilizer

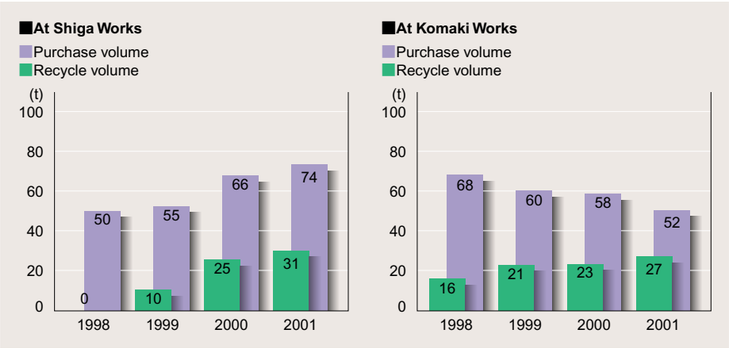
Reduction of Paper Consumption and Recycling

Daifuku is promoting waste paper recycling to protect forest resources which has a great effect for environmental protection.

Shiga Works is mostly purchasing and consuming the high-grade paper recycled from waste paper, while using back sides of all waste paper at the office. The waste paper used for both sides are to be recycled for the high-grade paper. The purchase volume in 2001 was increased by 12% from that in 2000 due to the increase of business and the moving of factory. However, the recycle volume increased by 42% in 2001 by the efforts of leaders in all Departments.

At Komaki Works, the waste copy paper including clean paper and colored paper is collected for waste paper recycling at each Department.

Recycling of Waste High-grade Paper



Collection of waste high-grade paper

Promotion of Recycling

Daifuku is promoting the recycling of used or waste materials, taking them not as the waste but as the resource.

In 2001, in accordance with the new “Law for Recycling of Home Electric Appliances”, Daifuku contracted the specialized waste disposal company who is a subsidiary company of home electric appliance manufacturer dispose of all refuse of scrapped television sets, air conditioners, refrigerators, and computers and their peripheral equipment. This contributed to the reduction of the refuse to be thrown away for land reclaiming.

COLUMN Thermal Recycling

Reuse of combustible refuse as the thermal energy source

Komaki Works is sending the combustible refuse to the local city government’s Environment Center through the waste disposal company designated by the local city government for incineration. The energy generated by the incineration is utilized as the thermal energy source for the warm water swimming pool and heating of homes for the aged.

The Environment Center and warm water swimming pool

Homes for the aged

Energy Saving and Resource Saving

As the energy consumption results in emission of carbon dioxide, it is pointed out that it will cause the impact on environment through global warming. Daifuku is trying its best to reduce the consumption of electric power and LNG for energy saving, and reduce the consumption of resources by efficient use and recycling. Also, Daifuku is planning to adopt the demand control system for reduction of power consumption.

Reduction of Power Consumption

Shiga Works is proceeding with various research and development activities for the energy saving for the production equipment and facilities. It covers the study of energy saving of such equipment as compressors, hydraulic equipment, lighting equipment and air conditioners, and the development of low temperature baking paints and coating materials.

Shiga Works is promoting the energy saving operations at each area by adopting such methods or systems as the power turning off when not using air pressure, parallel operation circuits, power saving operation between production lines, the energy saving circuits at break hours, and the circuits for operation time reduction. Also, the unnecessary lighting is turned off as well as the turning off the lighting of offices and factories by adoption of the automated circuits and block control system using lighting maps.

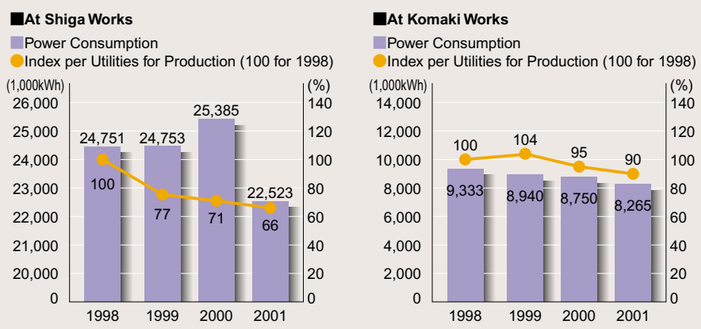
For future, Daifuku has a plan to adopt the demand control system to grasp in real time and control the demand trend of electric energy scattered in so wide a site as 1,250,000 square meters.

At Komaki Works, the power consumption was reduced by 3% as compared with the previous year for lighting, office automation equipment, air conditioners and production equipment and facilities in the year of 2001.

By means of the special investment in utilities equipment based on the result of the study in energy saving, the power consumption for air conditioning and lighting was reduced by 3% as compared with the previous year.

Daifuku is going to continue the energy saving activity for further efficient utilization of electric power.

Power Consumption



Energy Saving in Air Conditioning

Utilities Equipment invested

By means of demand control and power control (on-off control of compressors) applied to 86 units of air conditioners, the costs for electric power were reduced at both basic rate and surplus charge.

Energy Saving in Lighting

Utilities Equipment invested

- For office lighting, 168 lamps have been renewed and the number of lamps was reduced by 36% by means of adopting inverters while keeping the illumination unchanged.
- Also, the string switches have been attached to all individual lamps in the office, so that each lamp can be put off when not needed. This promotes both the practice and awareness of all employees.

String switches for energy saving of office lighting

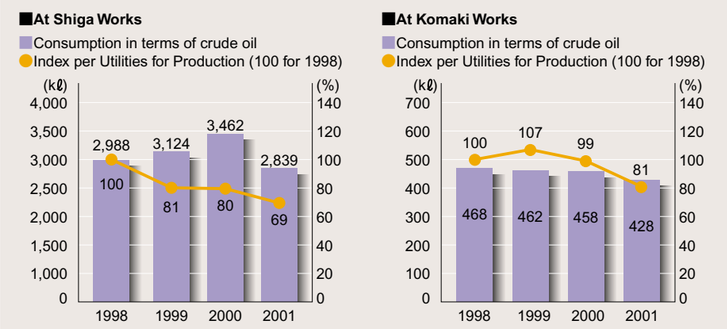
Reduction of Thermal Energy Consumption

Daifuku is actively promoting the reduction of thermal energy consumption.

At Shiga Works that is using liquefied petroleum gas (LPG) at the drying of coating line, the thermal energy consumption is being reduced by adopting the low temperature baking coating materials and low temperature degreasing agents.

Komaki Works is reducing the city gas consumption by setting the temperature upper and lower limits for air conditioning at 28℃ for summer time and at 25℃ for winter time. Also, reducing the use of company-owned cars and encouraging all employees to use public transportation instead of their own cars, in order to reduce the gasoline consumption.

Thermal Energy Consumption



Consumption of Thermal Energy

At Shiga Works		1998	1999	2000	2001
LPG (ton)		2,260	2,362	2,615	2,144
	In terms of crude oil (kl)	2,938	3,071	3,400	2,787
Light Oil (kl)		43	44	51	40
	In terms of crude oil (kl)	43	44	51	40
Gasoline (kl)		7.9	11	12.7	12.8
	In terms of crude oil (kl)	7	10	12	12
Total	In terms of crude oil (kl)	2,988	3,124	3,462	2,839

At Komaki Works		1998	1999	2000	2001
City Gas ($1,000\ m^3$)		200	197	198	182
	In terms of crude oil (kl)	216	213	214	197
LPG (ton)		110	108	105	113
	In terms of crude oil (kl)	143	140	137	146
Gasoline (kl)		120	119	118	92
	In terms of crude oil (kl)	109	108	107	84
合計	In terms of crude oil (kl)	468	462	458	428

COLUMN
Cogeneration System

At Shiga Works, about 70% of electricity is by its own power generator !

Shiga Works, being designated as the Class 1 energy controlling factory by the Japanese government regulation because of its large scale electric power demand, has started the cogeneration system since 1997 for effective utilization of electric energy. Currently, Shiga Works is using about 70% of needed electricity from its own power generator in this cogeneration system. The waste heat energy from this system is effectively utilized as the heat source for air conditioning of clean room.

Started operation since January 1997

Idling Stop

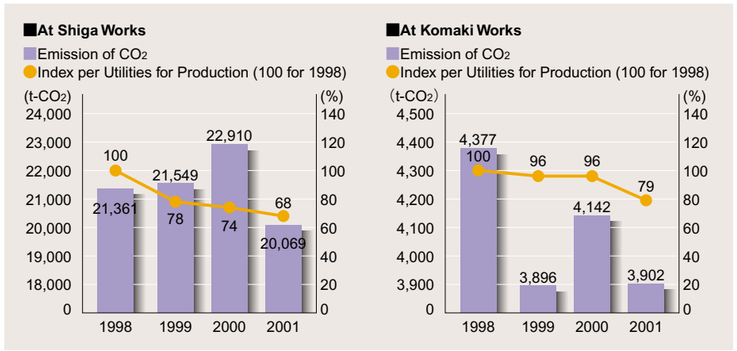
Promotion of Idling Stop of Cars

Both Shiga and Komaki Works are promoting the idling stop of cars by all employees, reminding them of it at the daily morning gathering and placing signboards for idling stop at the parking lots. To all visitor truck drivers, the gatekeeper is directly asking them to practice idling stop while they are waiting in the parking lot as well as inviting them to the waiting room.

For efficient transportation of products

Since 2000, both Shiga and Komaki Works started to grasp the data on transportation volume, running distance and frequency of all trucks for product transportation for centralized control of shipping information and improvement of transportation system, in order to reduce the emission of carbon dioxide.

Emission of Carbon Dioxide (CO_2)



Asking visitor truck driver to practice idling stop

Numbers and running distance of trucks, and CO_2 emission

	2000	2001
CO_2 emission (t-CO_2)	9,050	7,574
Running distance (km)	8,569,808	7,172,269
Numbers of trucks (in terms of 10 t)	21,859	17,578

(Total of Shiga Works and Komaki Works)

COLUMN Water Consumption

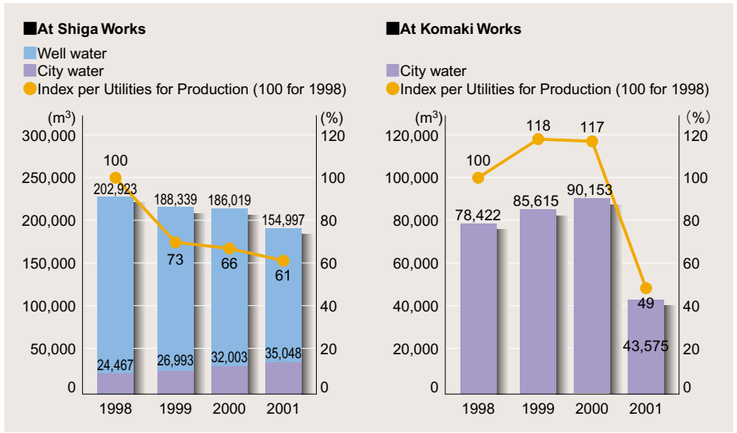
Daifuku is promoting the reduction of water resource consumption as well as preventing its contamination.

Shiga Works is treating well water by sludge dehydration at its water treatment facility. As this requires a large quantity of water to clean the filter cloth, the used water is returned to the system for recycling. For the reverse cleaning of filters that require a large quantity of water, the water consumption was greatly reduced in 2001 by adjusting the water quantity and shortening the cleaning time. The city water consumption in 2001 was increased due to the incidental leakage from piping.

Komaki Works has started monitoring of city water consumption in 1998 and identified its increase. After investigation, it was determined to be due to the leakage from piping, which was fixed and it resulted in decrease of water consumption in 2001.

To Reduce Water Resource Consumption

Water Consumption



Green Procurement

Daifuku is taking the procurement and purchasing activities are important factors for environmental consideration because they are giving the impact to the products though indirectly. Therefore, Daifuku is promoting the “Green Procurement” practice for establishing and implementing management system to ensure to supply the products with environmental consideration to the customer in cooperation with subvendors and suppliers of parts, components and materials.

Support and Assistance to Subvendors

Daifuku is asking all subvendors to cooperate in our “green procurement” system. In July 2001, Daifuku invited 15 main suppliers and subvendors to the first briefing session about ISO 14001 environmental management activities. Also, Daifuku has started the investigation of the environmental management implementation status of such companies that have already been ISO 14001 certificate holders. Daifuku is continuing to enhance the environmental consciousness of employees and suppliers for raising the level of green procurement, as well as preparation of our own Green Procurement Guideline.

Daifuku Green Procurement Committee and Design and Development Committee have investigated the rate of green procurement of parts and components currently used for main products to increase the use of the items by green procurement.

Reduction of packaging materials

Daifuku is planning to reduce the consumption of packaging materials for the products as well as for the parts and components from suppliers in cooperation with them. Especially, the increase in use of plastic tote containers is contributing to the reduction of waste considerably. Daifuku is planning to promoting its use further.

Plastic tote containers for reciprocal use between the supplier and Daifuku

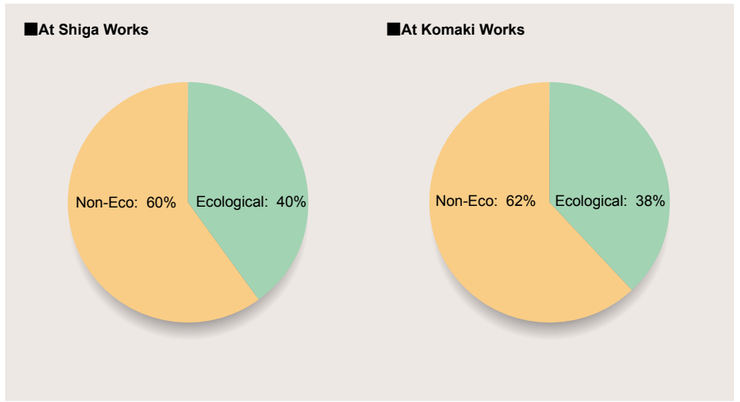
Mesh box pallets for reciprocal use between the supplier and Daifuku

Green Purchasing of office supplies and expendables

Daifuku is promoting “Green Purchasing” also for office supplies and expendables. As the basis for selection for it, network database and Eco labels of products are being used.

For office supplies, the purchasing guideline was established for convenience in selection of suppliers that are considerate of environmental impact of their products.

Purchase of Ecological (with less ecological impact) Office Supplies and Expendables (for one year from April 2001 to March 2002)



Control of Pollutant Emission

Daifuku is promoting to control the pollutant emission from its production process and activities by identifying its current status for improvement with the scrupulous attention for their reduction.

Pollutant Release and Transfer Register (PRTR) Control

To promulgate the control and reduction of the pollutant generation and emission in accordance with the Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management (also called the PRTR Law), Daifuku formed PRTR task forces at each factory.

At each sector for Procurement, Environmental Control, Administration, and Design and Parts Production, the quantities of purchase, consumption, use, disposal and inventory are being investigated, and the data on chemicals are being gathered to be input into the safety data sheet. Up to now, such chemicals were identified, and their use will be prohibited or reduced hereafter. Such activities at these sectors will be reinforced for more in-depth control and its promulgation.

At Procurement Sector
- Listing the chemical materials being used at Daifuku
- Requesting subvendors or parts suppliers to submit the MSDS of chemicals being used by Daifuku
- Preparing the data on quantities of each material

At Environmental Control Sector
- Identifying the needs of MSDS of chemicals being used by Daifuku
- Listing item numbers and usage of chemical materials on the register log
- Determining the organizational units for data gathering
- Study of equipment for environmental control
- Determining coefficient factors for emission and gathering the data on emission quantity

At Administration Sector
- Ensuring compliance with Laws and Regulations, including:
  - obtaining the updated information on laws and regulations
  - reporting to the authorities on PRTR related pollutant emission
- Publishing the information on environmental management
- Communicating risk to the community

At Design and Parts Production Sector
- Planning the pollutant reduction for the next year
- Research and recommendation on alternative materials
- Planning on the improvement of equipment and facilities for pollutant reduction

PRTR related chemical materials (in 2001)

Unit: kg

Control No.	Name of Chemical	Qty	Emission to:					Transfer to:		
			Air	Public water	Soil	Land	Total	Product	Waste	Total
1	Water soluble compounds of Zinc	773	0	0	0	0	0	611	162	773
25	Antimony and its compounds	106	0	0	0	0	0	95	11	106
29	Bisphenol A	2,212	0	0	0	0	0	1,438	774	2,212
40	Ethyl benzene	7,006	7,006	0	0	0	7,006	0	0	0
63	Xylene	43,275	43,275	0	0	0	43,275	0	0	0
69	Hexavalent chromium compounds	637	0	0	0	0	0	447	190	637
224	1,3,5- trimethyl benzene	1,019	1,019	0	0	0	1,019	0	0	0
227	Toluene	26,051	26,051	0	0	0	26,051	0	0	0
230	Lead and its compounds	668	0	0	0	0	0	480	188	668

* The chemicals being used in a smaller quantity than 100 kg per year were omitted because they are negligible.

Prevention of Water Pollution

Recognizing the water pollution has the significant impact on the soil, agricultural produce and living environment, each factory is exerting efforts to control and reduce the waste water emitted from its production process and activities, as well as to maintain compliance with the laws and regulations.

At Shiga Works, the waste water from production lines are treated at its own treatment facilities and discharged to Sakura River which is Class 1 river. The rain water from its conduits is reserved in the fire fighting reservoir. In addition to the maintenance of water treatment equipment and facilities, the discharged water quantity is being measured periodically; once a year for living environment elements, and twice a year for hazardous materials elements.

At Komaki Works, car washers, canteens for employees, and coating lines are the subjects of waste water discharge control. The waste water discharged from them are, after being treated by Daifuku's own water treatment facilities, drained to the public sewage conduit. The water quality control is being ensured in accordance with the local standards and Daifuku's voluntary standards, and being measured and monitored by the external organization once a month.

Waste Water Treatment Facilities

Air Pollution Prevention

Shiga Works, having cogeneration facilities, is exerting efforts to control and reduce the emission of soot and smoke from it to prevent the air pollution. All the equipment and facilities are being checked and maintained in accordance with the applicable laws and regulations, besides routine self checks.

As Shiga Prefecture government has put the "Regulation about Reduction of Impact to Air Environment" into force, Shiga Works has prepared the plan for the measures to meet it, and submitted it to the governor.

Checking the Cogeneration System

Soil Pollution Prevention

At production process where heavy metals and organic solvents are being used, the scrupulous care is taken to prevent their leakage to the environment.

Shiga Works is always monitoring lines and processes to prevent the soil pollution by the leakage of heavy metals, oil, grease, and organic solvents, and planning the measures for the leakage by unforeseen incidents. For example, the concrete paved leakage stopping fence was installed in the area of the facilities to trap the emitted oil and metal pollutants to prevent their emission to soil. Also the oil trapping fence was installed around the oil feeding equipment. All these devices are being periodically checked to the checklists for each of them.

Komaki Works, although no soil pollutant is contained in the materials being used for their products, has paved the floor with concrete and dug pits to prevent soil pollution by oil and organic solvents, and are monitoring the production operation.

Oil trapping fence

COLUMN Noise Prevention Measures

Komaki Works is complying with the Agreement with Komaki City government by measuring noise level at the points on boundaries of the factory site in all four directions of north, south, east and west once a month. All the results of measurement in 2001 were below critical noise levels: 60 dB in the morning (6:00 - 8:00), 65 dB in the daytime (8:00 - 17:00), 60 dB in the evening (17:00 - 22:00) and 50 at nighttime (22:00 - 6:00). Komaki Works is continuing the effort to minimize the noise level as it is close to the residential area in the city.

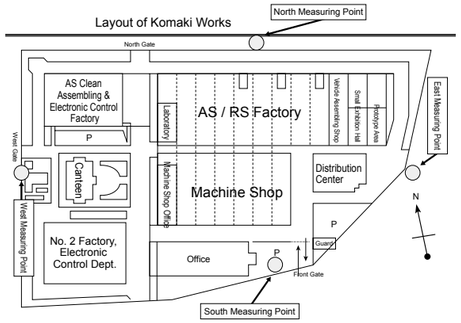
Monitoring Noise in accordance with Noise Prevention Agreement

Noise Levels measured

Unit: dB

Points \ Date	April 18, 2001			
	Morning	Daytime	Evening	Nighttime
East end	52	57	53	47
West end	50	53	52	49
South end	55	59	57	49
North end	52	54	54	48

Morning	Measuring time	6:00 - 8:00	Reference value: 60 dB
Daytime	Measuring time	8:00 - 17:00	Reference value: 65 dB
Evening	Measuring time	17:00 - 22:00	Reference value: 60 dB
Nighttime	Measuring time	22:00 - 6:00	Reference value: 50 dB



Communication and Relationship with Community

In order to let the public know of Daifuku's environmental activities, Daifuku is promoting various events and making the information open to the public through various media. For beautification of local environment and expressing our feeling of gratitude to the people in the local community, Daifuku is vitally having its employees participate in the cleaning activities.

Appealed about the activities at the World Lakes and Marshes Conference

In November 2001, the 9th World Lakes and Marshes Conference was held by the sponsorship of Shiga Prefecture government about the theme "Partnership for Life and Living in the lakes and marshes area – For protection and recovery of fresh water on earth". On that occasion, various events were conducted at many places in Shiga Prefecture. Shiga Works participated in them together with four companies in this district as the member of Industrial Society in Eastern Shiga area. Daifuku exhibited panels introducing its environment considerate products and activities in environmental issues to appeal many people about them.

The World Lakes and Marshes Conference Hall

Outdoor Exhibition and Booths

Demonstration of Daifuku's Attitude on Coexistence of Distribution Business and Environment

Daifuku exhibited its products (material handling equipment) contributing to environmental issues at "Distribution and Environment Fair 2002" held at Tokyo International Forum in February 2002.

Daifuku's Roll Box Pallet (Easy Lock Type), "Containers for scrapped home electric appliance collection", and "Magic Container" (foldable container) were exhibited, as well as various panels showing other products awarded in relation with energy saving and production control system to ISO 14001. For the good communication with visitors, sales people made presentation directly to them and attracted interest of many people.

Distribution and Environment Fair 2002

Area Cleaning as an Activity contributing to Local Community

Komaki Works is having its employees clean the area around its site twice a year. This project was started with the expectation to enhance the awareness about the environment cleanness among employees and to improve their manners so that they get off such bad habits as throwing cigarette butts on the street. Each time more numbers of employees are participating with higher awareness than previous time.

Also at the employee's dormitory house in Komaki, the residents are participating in the cleaning activity of local area with neighbors.

Cleaning around the factory area by all employees including management

Participation in Contribution to Local Community in cooperation with the local government

Shiga Works attended the meeting for Environment Protection in East Shiga Area held by the Environment Protection Institute of Shiga Prefecture Government in July 2001 and made presentations and vivid discussion about updated regulations, recent incident cases, and activities at each of Daifuku factories.

Also, Shiga Works participated in "Fresh Water Eco Foster Program"* instituted by Shiga Prefecture government and started the environment beautification campaign once a month since December 2001. Besides that, employees are cleaning their commute routes periodically every year.

The Meeting for Environment Protection in East Shiga Area

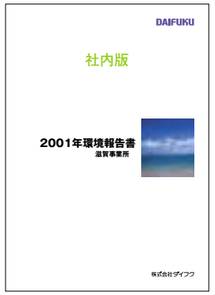
Cleaning of Commute Routes

Pamphlet of Fresh Water Eco Foster Program

Communicating to the general public about the Environment Protection Activities

In September 2001, Shiga Works issued the inter company report "Environmental Management Report for 2001" summarizing the results of activities in the year of 2000. This was for the purpose of appealing the importance of environment to all employees and associated companies and subvendors, as well as letting them know the status of Daifuku's activities.

This reporting activity will be expanded to the whole company and the distribution will be widened to all stakeholders including investors and local community people through various media, for more effective communication with them.



"Environmental Management Report for 2001" of Shiga Works

* The program for the volunteers from local community to clean and beautify the environment of local area enhance the awareness of residents in the area, supported by Shiga Prefecture government.

Let's go through Logistics!

The World Biggest Scale Exhibition Hall for Logistics

Compilation of Daifuku Know-how

Daifuku has an Exhibition Hall for Logistics called "Hiniaratakan" built by compiling all Daifuku know-how acquired through its experience in material handling equipment business for the period exceeding half a century.

There are exhibited 100 items of equipment, totaling 300 pieces in number, together with more than 100 pieces of logistics related equipment from 40 manufacturers. There are many types of environment considerate products. The material handling system, equipment and component are being displayed for the people who are interested in looking at them, knowing of them, or trying them.

Comprehensive Explanation of Logistics

For easy understanding, the dedicated guides are giving comprehensive explanation to all the visitors.

Furthermore, various types of presentation on the logistics and demonstration of their operation as well as the trial practice by visitors for their experience are provided for easy comprehension of logistics.

The number of total visitors reached 150,000 !

On May 23, 2002 (8 years after its opening in June 1994), the Pavilion had the 150,000th visitor, and celebrate it with holding a memorial event. The Pavilion is planning to further expand its repertory hereafter.

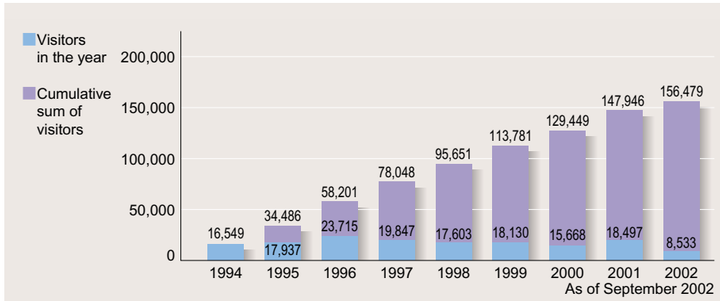
Hiniaratakan

The memorial event for the 150,000th visitor

The Section of Storage System

The Section of Environment-related Equipment

The Number and Cumulative Sum of Visitors



Environmental Activities

Hiniaratakan is promoting the environment protecting activities. For example, it is limiting the operation of the exhibited equipment only at the time that the visitors are looking at them, for the purpose of energy saving, and saving the internal lighting as follows:

(1) Changed all of 154 mercury lamps in the exhibition room on the first floor to metal halide bulbs.
(2) Changed 500 halogen lamps among 700 from 65 Watt ones from 100 Watt ones.
(3) Started the automatic switching off by means of program timers.

Also the paper recycling is being promoted for waste reduction purpose. The backside of used paper is being used, and the used high-grade paper is being recalled for recycling. The consumption of high-grade paper was reduced from 40,008 sheets in 2000 to 33,300 in 2001. The garbage from the visitors' dining rooms and office are collected for disposal at the garbage disposer and the output is being utilized as the fertilizer for plants in the factory.

For the reduction of exhaust gas from cars, shuttle buses are adopted and idling stop of all cars are being promoted by means of signboards.

Shuttle Bus

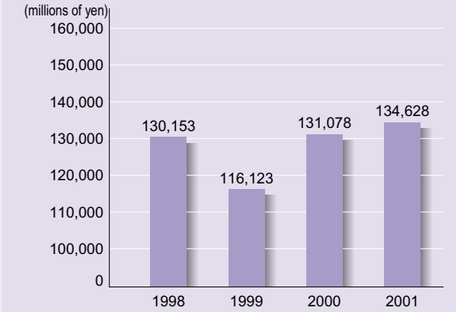
The Pavilion

Building Site Area: 6,049 m^2
Building Height: 25.1 m
Total Floor Area: 19,482 m^2
Parking Lot Capacity: for 5 buses and 50 cars.
Open hours: from 9:00 am to 5:00 pm.
(Reservations are needed.)
Days closed: Sundays and National Holidays
Homepage: http://www.daifuku.co.jp/hiniaratakan
Telephone No.: (Toll Free) 0120-074-854
Run by: Hiniaratakan Corporation
Address: c/o Shiga Works, Daifuku Co., Ltd.
1225 Nakazaiji, Hino-Cho, Gamo-Gun,
Shiga 529-1692, Japan

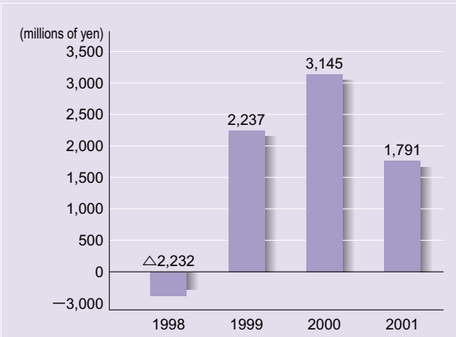
Company Profile

Corporate name	Daifuku Co., Ltd.
Established	May 20, 1937
Paid-in capital	8,023 million yen (as of April 1, 2002)
President	Katsumi Takeuchi
Employees	Approx. 3,500 (Total of Daifuku group, as of April 1, 2002)
Sales	134,628 million yen (Consolidated performance for the period ending in March 2002)
Business description	Comprehensive consultation services on physical distribution system and total engineering including designing, manufacturing, installation and after-sales service
Products	Conveying System, Storage System, Sorting and Picking System, Control System, Distribution System and others such as Car-Washing Machine and Bowling
Address	Head Office 3-2-11 Miteijima, Nishiyodogawa-ku, Osaka 555-0012 Japan Tokyo Head Office 2-14-5, Shiba, Minato-ku, Tokyo 105-0014 Japan

Sales (consolidated)



Pretax recurring profit (consolidated)



Offices and Factories

- Head Office
- Tokyo Head Office
- Shiga Works
- Komaki Works
- Daifuku Technology Service Corporation
- Contec Co., Ltd.
- Kyushu Daifuku Corporation
- APS Inc.
- Daifuku Institute of Technology Inc.
- Hiniaratakan Corporation
- Daifuku Business Service Corporation
- Daifuku Unix Corporation
- Renace Laboratory
- Overseas Offices
- DAIFUKU AMERICA CORPORATION
- SK DAIFUKU CORPORATION
- DAIFUKU CANADA INC.
- DAIFUKU EUROPE LTD.
- DAIFUKU (THAILAND) LTD.
- DAIFUKU MECHATRONICS (SINGAPORE) PTE. LTD.
- DAIFUKU-WIS Technologies Pte.Ltd.
- DAIFUKU (MALAYSIA) SDN. BHD.
- P. T. DAIFUKU INDONESIA
- DAIFUKU (SHANGHAI) LTD.
- DAIFUKU PIONEER CO., LTD.
- Clean Factomation Inc.
- ATS CO., LTD.
- CONTEC MICROELECTRONICS U.S.A INC.
- CONTEC MICROELECTRONICS EUROPE B.V.
- Beijing Contec Microelectronics Corporation
- International Contec Technology Co., Ltd.
- Shanghai Contec Microelectronics Corporation
- Shanghai Contec Digital Equipment Co., Ltd.
- Shenyang Contec Microelectronics Co., Ltd.
- Macromate Corp.
- HYOJIN CONTEC CO., LTD.