



ANNUAL REPORT
For the year ended March 31, 1998

1998

MEIDENSHA CORPORATION

Profile

As a heavy electric machinery manufacturer, Meidensha Corporation has steadily brought about its good business results, advancing toward total system engineering in a variety of technical fields. The noteworthy policy of the company is consistently focused on a new technical concept, to be referred to as POWERTRONICS, which is the fusion of heavy electric technology with electronics technology. This concept is further joined with MECHATRONICS and ELECTRONICS, thus creating three essential factors of business transactions.

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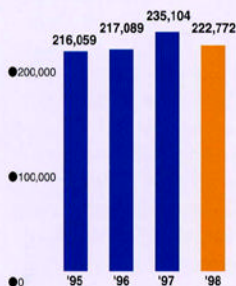
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Financial Highlights

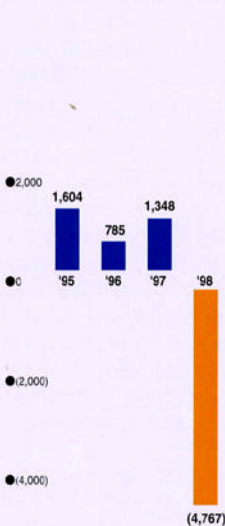
	Years Ended March 31			
	Millions of yen	Millions of yen	Millions of yen	Thousands of U.S.dollars
	1998	1997	1996	1998
Net Sales	¥222,772	¥235,104	¥217,089	\$1,687,667
Net Income (Loss)	(4,767)	1,348	785	(36,114)
Net Income (Loss) Per Share (yen, U.S.dollars)	(23.60)	6.68	3.89	(0.18)
Cash Dividends Paid	1,818	1,616	808	13,773
Total Assets	253,671	245,003	229,572	1,921,750
Number of Employees	9,293	9,315	9,151	—

The consolidated figures in this Annual Report are expressed in yen and solely for the convenience of the reader, translated into United States dollars at the rate of ¥132=U.S.\$1, the approximate exchange rate prevailing on the Tokyo Foreign Exchange Market as of March 31, 1998. See No.1 of notes to consolidated financial statements.

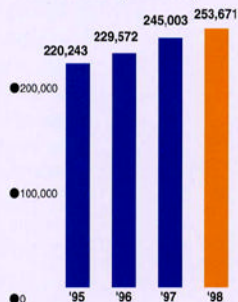
Net Sales (¥ millions)



Net Income (Loss) (¥ millions)



Total Assets (¥ millions)



Message from the Management

In 1997, due to the currency crises in the Southeast and East Asian countries that had formerly achieved a so-called "miracle growth of economy," the rate of economic growth was extremely reduced and they were obliged to maintain a reduced budget. Furthermore, in autumn, stock prices simultaneously declined steeply and people came to realize the significance of mutual dependence on the international economy.

With regard to Japan's economy, on the other hand, there were six major changes including administrative and financial innovations, and active discussions have been held on the reorganization of central ministries and government departments. The practical compilation of the budget has been carried out; it involved the curtailment of public investment.

Despite such adverse economic circumstances, Meidensha Corporation developed more positive sales activities, but in consequence the overall order entries in fiscal 1997 totaled 183,024 million yen (unconsolidated basis), a 3.9% decrease compared with the previous period.

The total sales turnover was 184,576 million yen (unconsolidated basis), or 222,772 million yen (consolidated basis), resulting in the respective decreases of 6.5% and 5.2% compared with the previous term.

Regarding earnings, corporate efforts were focused on the reduction of expenses and costs, and also the improvement of productivity, which nevertheless resulted in a term-end loss of 4,374 million yen (unconsolidated basis), or 4,766 million yen (consolidated basis).

Concerning dividends for shareholders, mid-term dividends were 4 yen per share, but term-end dividends could not be achieved, which the Management regrets.

The company's plant and equipment investments totaled 5,551 million yen (unconsolidated basis), mainly for the rationalization of production lines at the Numazu Administration Office. Also succeeding the project for the previous term, the rearrangement of the domestic information exchange network was carried out.

With regard to finances, the company issued commercial paper and newly borrowed from bank for working funds. The term-end commercial paper issuing balance amounted to 27,000 million yen and the debt from bank to 43,887 million yen (unconsolidated basis).

It is just one century since the privately managed electrical machinery factory (the original organization of Meidensha Corporation) was founded in 1897. Meidensha Corporation is deeply grateful to many shareholders, customers, and the people concerned with Meidensha's undertaking for their kind support and guidance through so long a history of the company. Judging from the current business recession in Japan and the rise of international competition or so-called mega-competition, the company thinks it difficult to expect a marked rise in the order entry and sales turnover, and in addition the

conditions for increasing profit are predicted to be severer. Under such a rigorous situation, however, our most important object is the expansion of our order entry and sales systems in order to create the enterprise structure that can assure stable profit, by strongly promoting structural renovation suitable for the coming 21st century.

The company will foresee market needs, develop new products and techniques based on its unique creativity, and promote activities to increase sales turnover. For this purpose, the company will strive after speedy and timely developments by analyzing the domestic and overseas trends in regard to technologies and products. In such a case, as a matter of course, quality and reliability will remain the company's essential motto.

The business environment still seems likely to increase its severity further. As stated previously, however, we will do our best for the development of corporate business, by establishing a strong company constitution that can assure stable profits at all times while making a contribution to society, based on various policies and measures that can yield customers' further satisfaction.

We always solicit our shareholders for their unchanged support, suggestions, and advice.



Keiji Kojima

Keiji Kojima, Chairman

Shigeo Seko

Shigeo Seko, President

Expanding Meidensha Overseas Business

Meidensha Corporation is evolving overseas business transactions mainly in Southeast Asian areas and also in North America and European countries. In the Southeast Asian areas, its manufacturing bases are located in Thailand, Malaysia, Singapore, and Hong Kong. Engineering firms are also situated in Thailand, Malaysia, Singapore, and Indonesia. These business organizations are evolving a wide range of business transactions, from manufacturing and sales to construction and maintenance services. Major manufacturing bases and engineering firms in Asian areas are outlined below.

1: MEIDEN ELECTRIC (THAILAND) LTD.

Contents of business
Designing and manufacturing of switchgear (Low voltages ~24kV)

'97 Topics
 • The switchgear factory was separated from THAI MEIDENSHA CO., LTD., and started as a new company (on 2 March 1998)



24kV switchgear

2: MEIDEN METAL ENGINEERING SDN. BHD.

Contents of business
Manufacturing and sales of tanks, and radiators for transformers, etc.

'97 Topics
 • Shipment of tank products for transformer factories was started in October 1997.



External tank of a transformer

3: JARDINE-MEIDEN ENGINEERING CO., LTD.

Contents of business
Manufacturing and sales of switchgear, etc.

'97 Topics
 • The largest order entry was recorded in fiscal 1997.
 • The highest dividend was achieved in fiscal 1997.



12kV switchgear

4: MEIDEN QUARTZ(S) PTE. LTD.

Contents of business
Manufacturing and sales of quartz crystal products

'97 Topics
 • The highest current profit was attained in fiscal 1997.



Crystal units

5: MEIDEN QUARTZ(M) SDN. BHD.

Contents of business
Manufacturing and sales of quartz crystal products

'97 Topics
 • The waste water treatment system was extended as the factory environment facilities.



Crystal units

6: MEIDEN SINGAPORE PTE. LTD.



150MVA power transformer

Contents of business
 • Ultra-high-voltage, special-high-voltage, and high-voltage substation facilities for PowerGrid in Singapore
 • Special-high-voltage and DC substation facilities for the Land Transit Authority (LTA) in Singapore
 • Manufacturing and sales of power transformers (500 ~ 3500kVA)
 • Manufacturing and sales of switchgear (6.6kV ~ 24kV)
 • Power receiving, substation and power generating facilities for plants of private organizations
 • Other electrical and mechanical facilities
 • Various engineering, maintenance and inspection services

'97 Topics
 • Moving to a new factory was completed in December 1997.
 • Production of VCBs was started in March 1998.

7: THAI MEIDENSHA CO., LTD.



Steel tube manufacturing plant



Contents of business
 • Power receiving, substation, and power generating facilities for government organizations in Thailand
 • Designing of power receiving, substation and power generating facilities, equipment manufacturing, and construction facilities for plants of private organizations
 • Designing of machines, air conditioners, and instrumentation facilities, equipment manufacturing, and construction work
 • Designing of lighting, communication, fire alarm, broadcast, surge protectors, etc.
 • Other electrical and mechanical facilities
 • Various engineering, maintenance and inspection services

'97 Topics
 • The switchgear factory was made independent and as MEIDEN ELECTRIC (THAILAND) LTD.

8: MEIDEN ELECTRIC ENGINEERING SDN. BHD.



GIS facilities (132kV)



Contents of business
 • Ultra-high-voltage, special-high-voltage and high-voltage substation facilities for a power company in Malaysia (TNB)
 • Special-high-voltages and high-voltage substation and electrical facilities for water treatment for the State Bureau of City Water (SIB)
 • Power receiving, substation and power generating facilities for plants of private organizations
 • Other electrical and mechanical facilities
 • Various engineering, maintenance and inspection services

'97 Topics
 • Turnover and profit have kept increasing conditions in the past 11 years, creating a Meidensha's engineering basis toward the 21st century.

9: PT. MEIDEN ENGINEERING INDONESIA



Substation facilities for plant (400V~20kV)



Contents of business
 • Designing of power generating and substation facilities, equipment manufacturing and construction work for a power company (PLN) in Indonesia
 • High-voltage substation and power distribution facilities and communication facilities for a national railway company (PERUMKA) in Indonesia
 • Designing of power receiving, substation and power generating facilities, equipment manufacturing, and construction work for plants of private organizations
 • Designing of other plant-related electrical and mechanical facilities, equipment manufacturing, and construction work
 • Various engineering, maintenance and inspection services
 • Consultant for electrical facilities

'97 Topics
 • Notwithstanding the financial crisis occurring in the later half of fiscal 1997, the total order backlog in fiscal 1997 attained 3 times that of the previous year.
 • The total sales amounted to twice the previous year.

Review of Operations

Meidensha's POWERTRONICS is a core field that supports our profit. For many years this field has offered its related facilities, systems, and services to a variety of customers in electric power, government, industrial, and overseas organizations.

We introduce below some technologies developed, as well as products manufactured and delivered in this field in fiscal 1997.



Gas-Turbine Power Station

In the field of electric power generation, the three-less type (oilless, waterless, and brushless) second-generation Digital-Relay Equipment hydro-power generating facilities were delivered; they are very effective in the reduction of maintenance work.

Regarding newly developed products, the machine of the second-generation digital relay equipment was delivered to Tokyo Electric Power Co., Inc., for use in an outdoor distribution type substation. Current trends suggest that gas turbine types are increasingly being ordered for the cogeneration systems that are kind to the natural environment. As a typical cogeneration system that can save fuel and reduce atmospheric pollution, a gas-turbine cogeneration system of Japan's largest class (18,000kW) was delivered. This system can change the output ratio of electric power to heat according to the demand for power and heat.

Meidensha Corporation received many orders for a variety of electrical appliances for independent power producer (IPP). These will be used for combined-cycle IPP,

private power generating IPP, and IPP in Japan and south-east Asia. In addition, the company has developed a single-operation detector unit for IPP and dispersed power sources, in order to maintain the stable operation of the power source.

A mobile generating system vehicle was delivered, equipped with a 2500kVA gas-turbine generator, all assembled on one truck. This vehicle is intended for use as a power source for power distribution line construction work that is to be accomplished in the no-service-interruption mode, or for power supply in case of emergency or disasters. This equipment has the largest capacity ever recorded in Japan. This record proves the high level of Meidensha engineering.

For power companies, a work support system was developed and delivered. It is intended to increase the working efficiency at substations in trunk systems.

A distribution-line work support system was also delivered. In fiscal 1997, maps of power distribution lines were put into electronic systems in the first step. This achievement eliminated the large quantity of paper that had been consumed for drawings. This system enables the modification of distribution line routes and the updating of consumer data, accomplished from an operator console. In the second step in the future, features will be added to enable the automatic establishment of a distribution line work plan and fault simulation. In further steps, functions of information transfer will be added so that fault data can be transferred to regional offices.

In the field of public and environment-related facilities, ozone-using water purification systems were delivered for the improvement of water quality at city water and sewage systems. The utilization of multi-media has already begun, for the contribution to maintenance in the water-related environment. Meidensha Corporation has constructed a

multi-media information communication network that uses optical fiber cables as the transmission paths to be laid in sewage conduit systems. This network was delivered to a certain city. It is called the sewage-managing advanced data system. This is an advanced system for a multi-media system using optical fiber cables laid in sewage conduits.

At a sewage water treatment site, it is essential to take measures against corrosive gases that can damage control equipment. Meidensha Corporation has successfully developed a low-price corrosive gas elimination facility with high performance and the feasibility of easy filter replacement.

A super refuse power generating facility, or a so-called waste power generating system, was delivered. This equipment improves the power generating efficiency by utilizing waste gases from gas turbines.

Meidensha Corporation contributed greatly to the Nagano Olympic Games held in February 1998. The company delivered the power receiving and substation facilities to the Hokuriku Shinkansen bound for Nagano, which started commercial operation on October 1, 1997. These facilities make full use of new power feeding technologies and are installed in a boundary section between 50Hz and 60Hz areas. In particular, the different-frequency cross-contact relay (which won the Ohm Award for the latter half of 1996) and the feeder voltage drop compensator unit (RPC), for example, are based on



Multi-Media Supervisory Equipment

Meidensha's unique engineering techniques. Power dispatch systems, intended for feeder power regulation during the operation of electric cars, were delivered to other railway companies.

In the field of urban facilities, many power supply facilities were delivered as major sources for buildings, for the efficient management of cogeneration systems and power receiving and substation facilities.

Three-phase four-wire active filters were also delivered as they are effective in the suppression of harmonics that could be generated in the substation facilities owned by customers.

In the field of overseas operations, development for the expansion of unit capacities has been promoted for the



Super Refuse Power Generating Facility



Single Phase Feeding Power Conditioner

sealed type gas-insulated switchgear (GIS), in order to meet the requirements of power-

transmission substations installed in the Middle Near East and south-east Asian countries. Railway substation facilities were delivered to Hong Kong MTR (mass transit railway), Kuala Lumpur LRT-2 (light railway) in Malaysia, and Manila LRT (light rail transit) Line-3 in the Philippines.

As the development of rectifiers for DC traction substation has been furthered for overseas applications, compactness of panel bodies has been realized.

POWERTRONICS

Review of Operations

In the field of MECHATRONICS, Meidensha Corporation manufactures dynamometer-applied systems, FA systems, induction heating equipment, and many other products and systems for application to a variety of industrial fields.

We will now introduce some technologies developed, together with products manufactured and delivered in the MECHATRONICS field in fiscal 1997.

In the field of dynamometers, newly developed permanent magnet type dynamometers (PM-DY) are selling favorably.

In conjunction with countermeasures to be taken to solve problems of the global environment, Meidensha corporation has made many achievements through the development of testing facilities for hybrid electric vehicles. In this type of vehicle, an electric vehicle or its driving system has a combination of an engine and an electric motor.

We have obtained a high reputation for the chassis dynamometers for two-wheel vehicles, to which the exhaust gas regulations began to be applied from this year. For the testing equipment, a high-performance power train tester has been developed. For this equipment, the chilled disk system is used in the moving unit.

In the field of FA systems, palletizing and depalletizing



Chassis Dynamometer for Two-Wheel Vehicle

systems have been developed and delivered, to be used with tier-stack type pallets. Their operating time is only 1/10 of the former value. They are also capable of adjusting to variations in pallet positions. They can handle multiple market-available pallets if they are properly modified.

In addition, Meidensha Corporation has reinforced the lineups of unattended cargo-handling vehicles, overhead traveling trucks, vertical carriers, various robots, and industrial manipulators to be used in the field of physical distribution. General unattended physical distribution systems, coming in combination with image processing units, etc., have also made great achievements.



Bag Palletizing System



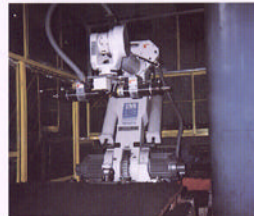
Permanent Magnet Type Dynamometer



Low Vehicle Height Traction Carrier



Vertical Carrier for Shipping Warehouse



Sand Die Boring Robot

MECHATRONICS

Review of Operations

ELECTRONICS is a new field for Meidensha Corporation in the past 100 years of business transactions. However, the Company makes full use of its computer-applied techniques evolved in the fields of POWERTRONICS and MECHATRONICS, and we have developed a variety of unique equipment and machines. Sales activities have been widely and positively carried out in industrial, governmental, power-generating, and overseas operation fields.

Some outstanding technologies for the related products manufactured and

delivered in the ELECTRONICS field in fiscal 1997 are introduced below.

In the field of ELECTRONICS, "WindowsNT" as an OS has been adopted for combination with industrial computers, the μ PORT Series, which is famous for its useful RAS functions. This series is referred to as the " μ PORT-M2" and sales activities have already been started.

In order to enhance the controller series μ PIBOC, to be incorporated in equipment and units on production lines, the Pentium version has been added.

In the field of supervisory control systems, Meidensha Corporation has developed the high-performance personal computer loaded supervisory control system OPS400 that uses state-of-the-art graphical user interface (GUI) techniques, an industrial personal computer (μ PORT-M2), and WindowsNT. This product will become very important in the future when used with Meidensha supervisory control systems.

Regarding building management systems, the personal computer incorporated system, the "MEISVY-BC/NT,"



Factor Chart Display

an intelligent remote station. It is favorably accepted by customers.

For multi-media-related equipment, we have developed and delivered a business information system that utilizes an internet/intranet. It is applicable to plant facility management and maintenance control.

In the field of process control, we have delivered an integrated system of electric instrumentation and computers (EIC) system that assures the efficient operation of refuse incineration furnaces and concentrated supervision and control.

For iron and steel manufacturing lines, a new tension control system has been developed for annealing and pickling lines. This system is accumulating favorable achievements in actual operation.

The high-function inverter "THYFREC-VT310" is used for the synchronous control of a newspaper rotary press, realizing shaftless control.

In the field of semiconductor electronic devices, we have reinforced the lineups of ultra-compact temperature-compensation type crystal oscillators applicable to portable telephones and PHS units; these were developed in response to the pressing requirements for down-sizing. Regarding semiconductor manufacturing equipment,

has been newly added to reinforce the product series. This is a dispersed type personal computer system that incorporates



3-D Graphic Function Display

the communication package software "MAGNEM" has been favorably accepted. This product easily establishes a function of communication with the production control software used at semiconductor plants.

There is news about a new product. Since semiconductor wafers are going to have larger apertures in the future, a pulse source for the Kf1000pps excimer laser has been added to the product lineups (Kf:Krypton Fluoride). This source unit is very important in semiconductor manufacturing equipment. Its principle is such that a semiconductor integrated circuit is used as a high-voltage pulse source for the stepper that works on the excimer laser. Vacuum capacitors, products unique to Meidensha Corporation, are also selling very well. There have also been great achievements in R&D activities.

For environmental preservation, a control system has been developed for the sewage sterilization facility that regulates the injection rate of chemicals based on the auto-telemetry measurement of coliforms.

The company has also developed a high-sensitivity ammonia meter and a high-accuracy analytical system for bromic acid ions that are believed to be a carcinogenic substance contained in water.

In the field of energy control, a trial production has been successfully achieved for flat type motor-generator

equipment that assures less idling-loss of wheels, to be applicable to hybrid electric vehicles. The result seems to bode success for future commercialization.

Regarding information and communication



High-Function Inverter: THYFREC-VT310

facilities, fundamental techniques have been developed for the portable type image transmission system that sends out images of a remote place through a portable telephone or a PHS unit. Application of mobile technologies to various industrial fields is expected.

The topographical map input and editing system, the



Topographical Map Input and Editing System, FINE ZUING FZ-200MP

processing for houses and buildings and the digitization of topographical maps formerly considered to consume very much time.

As a new technique for the remarkable improvement of software productivity, a data maintenance technique has been developed according to object-oriented requirements.

Results in the field of simulation are also important. A lightning surge analyzing model has been developed. A real-time simulator has also been introduced. This is a simulator intended to perform real-time simulation in power systems. Analyzing efficiency has been actually improved through the reduction of computing time and input data producing time. This product enables simulation of a large-scale power system (1600 nodes).



Pulse Source for the Kf1000pps Excimer Laser

© WindowsNT is the brand name of U.S. Microsoft Corporation.

Regarding overseas operations in fiscal 1997, competition on pricing seems to have been severer in overseas markets. Against such an adverse business background, however, Meidensha Corporation has accepted orders with a 6.1% rise as compared with achievements in the previous year, even though a financial crisis broke out in Southeast Asia, which is an important market for



110kV GIS

Meidensha. This rising tendency has been further stimulated by the falling price of yen. Thus, order entries amounted to 20,509 million yen and the sales turnover was 22,485 million yen (unconsolidated basis), a 6.1% and a 23.2% rise, respectively.

Major products ordered in fiscal 1997 will be introduced below.

In the field of power generation, we received an order for 4 sets of 10,650kVA diesel engine generators to be shipped to Sandakan Power Corporation in Malaysia. We also received orders for 31,250kVA steam turbine power generating facilities from refuse incineration



50MVA Transformer

plants of Taichung and Changhua Prefectures in Taiwan. Regarding transactions in West Asia, we received an order for 2 sets of 48,125kVA steam turbine power generating facilities to be shipped to Essar Oil Ltd. in India, and also an order for 7 units of 7063kVA diesel engine generators to be shipped to Army Welfare Trust, Inc. in Pakistan.

In the field of power transmission and substations, we have received an order for 3 units of 200MVA transformers, 2 units of 150MVA, 14 units of 75MVA transformers, and 25 units of 10MVA transformers from PowerGrid Pte., Ltd. of Singapore. China Light & Power Co., Ltd. (CLP) in Hong Kong ordered us 1500 panels of 11kV switchgear.

We also accepted an order from the Electricity Generating Authority of Thailand (EGAT) for many 50MVA transformers, succeeding the transactions in the previous year. Powerlink Queensland of Australia ordered us the supply of 5 sets of 35MVA shunt reactors.

In the field of railway equipment,



Railway Substation Facilities

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In the field of railway equipment,

we received an order from the Land Transit Authority (LTA) of Singapore for the supply of railway substations to be used for the Changi extension line project. We also accepted an order from the CTCI Corporation in Taiwan for a complete set of the SCADA system for railway DC substations installed on the Nankang - Banchiao line.

Regarding equipment and component for substations, indoor general-purpose VCBs of 36kV or below, inverters, and surge arresters have been delivered in large quantities.

In the field of dynamometers, we received an order from a company of USA for the car noise and vibration inspection and testing equipment, the P/T tester, to be used for R&D purposes. We also received an order from a company of Korea for 3 sets of A/T line testers to be used in production line facilities for car auto-transmissions.

Major products manufactured and shipped in fiscal 1997 were as follows:

In the field of power generation, four 19,622kVA low-speed diesel-engine generators were delivered to Stratavest Sdn. Bhd. of Sandakan,



12kV Metal-clad Switchgear, HICLAD-10J

Malaysia.

In the field of power transmission and substations, about 1800 panels of 11kV switchgear were shipped for CLP in Hong Kong. Five 75MVA transformers and 400 panels of 22kV GIS were shipped for PowerGrid Pte., Ltd. of Singapore. 29 units of 50MVA transformers were delivered to the EGAT, Thailand. 110kV GIS was also delivered to Vietnam.

In the field of railway equipment, many railway substation facilities have been delivered to Metro-Rail Transit Corp. of Manila in the Philippines and Mass Transit Railway Corp. (MTRC) of Hong Kong.

In the field of dynamometers, the FF final tester for car auto-transmission inspection facilities was delivered to a company in Belgium. Two sets of torque control testers were also delivered to Korea.



Railway Panel for Railways

OVERSEAS OPERATION

R&D Review

The Meidensha Intelligent Laboratory is promoting creative and leading R&D activities in the fields of energy and its control, environmental preservation, information/communication, functional materials, and new devices, all of which are indispensable to support the infrastructure of society, and also in the fields of fundamental technologies that underlie these areas.

Electric Double-Layer Capacitor

The electric double-layer capacitor comes in a construction which an electrolytic material is inserted in a pair of opposed activated carbon electrodes. Its operational principle stems from the storage of electric charges in the electric double-layer exhibiting on the interface between the electrode and the electrolyte. Therefore, this is an unique energy storage device that has attracted general attention recently because it offers a variety of unique features. For example, it has a volumetric capacitance several thousand times that of an electrolytic capacitor or any other capacitor that utilizes dielectric, the charge and discharge can be repeated more than 500 thousand cycles, and a large current in the order of ampere can be taken out momentarily as no chemical reactions occur.

At Meidensha Corporation, the both sides of an electrode are lined with activated carbon to create a bipolar electrode, which is operated as an anode and a cathode on the each side. In addition, an organic electrolyte is inserted between electrodes to form a bipolar cell Fig. 1 (a). The bipolar cell comes in a construction composed of unit cells Fig. 1 (b) in stacks. Thus, it is possible to raise the operating voltage of the capacitor. By using multiple bipolar electrodes, it is also possible to make up the stacks in any number of cells. The curves in Fig. 2 show an example of the charge-discharge of the electric double-layer capacitor. The bipolar cell in the example is composed of 3 unit cells in stacks, and it repeats charge and discharge operations of charging up to 6V and discharging down to 3V. It has been confirmed that the 3-stacked bipolar cell generates a voltage 3 times that of a single cell successfully.

Development of High-Sensitivity Ammonia Monitor

While problems of the global environment are getting severer, the problem of contamination by micro-organisms such as cryptosporidium is becoming more serious in the field of city water systems. As a means of increasing the sterilizing power, the pre-chlorination is being reevaluated. In this connection, a more adequate control method is called for in the management of chlorination. Meidensha Corporation has developed a high-sensitivity ammonia monitor suitable for the continuous measurement of ammonia concentration in a low-concentration area of city water systems. A new method has been used as the principle of measurement, that is the combination of the flow injection analysis(FIA) method and the chemiluminescence nitric monoxide detection method. This ammonia monitor offers many features such as its response characteristic, which is outstanding for a chlorine feeding control signal as its response is extremely fast, being only 5 minutes for the shortest measuring time, and the high-sensitivity measurement, which is possible within a measuring range of 0 ~ 1.0mg/liter. Since a touch panel and such control devices are used, this is a highly dependable measuring instrument achieving the improvement of a display device and the reduction of maintenance operation labor.

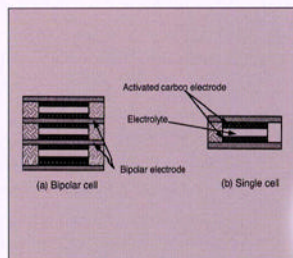


Fig. 1 Construction of Electric Double-Layer Capacitor

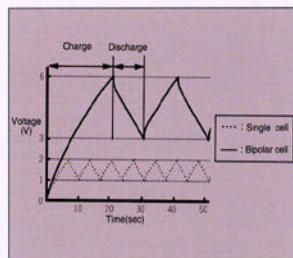


Fig. 2 Voltage Curves of the Tested Cells



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Consolidated Financial Review

Outline Profit and Loss Situation

During the fiscal year ended March 31, 1998, business circumstances witnessed (1) the long-term downward trend of individual consumption rate due to consumption tax rate increase, etc., (2) sluggish public investment, (3) economic meltdown of Asian regions, (4) decline of the public confidence on the Japanese financial systems during the latter half of our fiscal year 1997. All of these factors produced negative impacts to the economic climate in Japan, which has been in an extremely serious condition. Despite that Meidensha Corporation focused its complete power on sales transactions, both consolidated net sales and consolidated term-end net income decreased.

Net sales was 222,772 million yen, a 5.2% decrease compared with the previous term. Composition rates for machine types were 32.1% for control equipment, 14.5% for transmission and distribution equipment, 10.5% for rotary machine, 12.8% for construction and wiring, and 30.1% for others.

Cost of sales was 175,905 million yen, which is a 3.1% decrease. Selling, general and administrative expenses were 48,578 million yen in total, a 0.5% rise. As a result, operating loss was 1,711 million yen. Other income and expenses showed decrease of 1,722 million yen.

As a result, net loss for this term was 4,767 million yen.

Financial Conditions

Total assets at the end of March 1998 were 253,671 million yen, an increase of 8,668 million yen. Current assets out of these were 194,514 million yen, an increase of 9,336 million yen, as a result of an increase in marketable securities and inventories. Property, plant and equipment was 47,391 million yen, a decrease of 541 million yen. Total current liabilities were 174,134 million yen, an increase of 18,205 million yen, and shareholders' equity was 53,800 million yen, a decrease of 6,829 million yen. As a result, shareholder capital ratio moved from 24.7% to 21.2%, a decrease of 3.5 points.

Five-Year Summary

Meidensha Corporation and its consolidated subsidiaries
Years ended March 31

	Millions of yen	Millions of yen	Millions of yen	Millions of yen	Millions of yen
	1998	1997	1996	1995	1994
Net sales	¥222,772	¥235,104	¥217,089	¥216,059	¥210,017
Net income (loss)	(4,767)	1,348	785	1,604	1,813
Net income (loss) per share (Yen)	(23.60)	6.68	3.89	7.94	8.97
Cash dividends paid	1,818	1,616	808	1,616	1,616
Depreciation and amortization	6,666	6,538	6,482	6,849	6,714
Total assets	253,671	245,003	229,572	220,243	213,161
Net property, plant and equipment	47,391	47,932	47,769	46,307	45,508
Shareholders' equity per share (Yen)	266.30	300.11	301.05	302.24	299.36

Operational

Review

Rotary machine

Net sales ¥23,433 million
(\$177,523 thousand)

Main Products

Dynamometers
Electric Motors
Generators

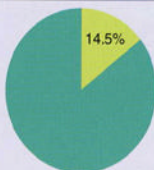


Transmission and distribution equipment

Net sales ¥32,193 million
(\$243,886 thousand)

Main Products

Transformers
Circuit-Breakers
Surge Arresters

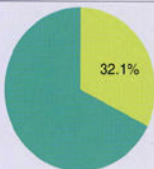


Control equipment

Net sales ¥71,492 million
(\$541,606 thousand)

Main Products

Programmable Controllers
Static Power Inverters and Converters
Cubicle and Switchgear

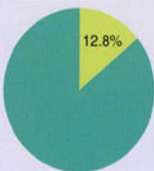


Construction and wiring

Net sales ¥28,514 million
(\$216,015 thousand)

Main Products

Plant Construction



Others

Net sales ¥67,140 million
(\$508,636 thousand)

Main Products

Electric Hoists and Cranes
Quartz Crystal Units
Manipulator-Robots etc.



Consolidated Balance Sheets

As of March 31, 1998 and 1997

	Millions of yen	Millions of yen	Thousands of U.S.dollars (Note1)
Assets	1998	1997	1998
Current Assets:			
Cash and time deposits	¥19,080	¥11,853	\$144,545
Marketable securities	35,155	27,424	266,326
Receivables:			
Trade notes	17,357	16,000	131,492
Trade accounts	84,857	95,775	642,856
Loans and advances	766	961	5,803
Due from unconsolidated subsidiaries and affiliates	687	249	5,205
Less: Allowance for doubtful accounts	(775)	(856)	(5,871)
Inventories (Note 3)	34,675	31,197	262,689
Deferred income taxes	551	589	4,174
Other current assets	2,161	1,986	16,372
Total current assets	194,514	185,178	1,473,591
Property, Plant and Equipment:			
Land	5,846	5,883	44,288
Buildings and structures	39,864	37,513	302,000
Plant and equipment	80,466	77,399	609,591
Construction in progress	1,194	2,258	9,045
Less: Accumulated depreciation	(79,979)	(75,121)	(605,901)
	47,391	47,932	359,023
Investments and Other Assets:			
Investment securities	1,161	1,311	8,795
Shares of unconsolidated subsidiaries and affiliates (Note 4)	1,378	1,229	10,439
Long-term loans	384	358	2,909
Deferred income taxes	233	232	1,765
Other assets	8,605	8,773	65,190
Less: Allowance for doubtful accounts	(15)	(10)	(113)
	11,746	11,893	88,985
Foreign currency translation adjustment	20	—	151
Total Assets	¥253,671	¥245,003	\$1,921,750

See accompanying notes.

	Millions of yen	Millions of yen	Thousands of U.S.dollars (Note 1)
	1998	1997	1998
Liabilities and Shareholders' Equity			
Current Liabilities:			
Short-term borrowings (Note 5)	¥40,561	¥37,572	\$307,281
Commercial paper	27,000	17,000	204,545
Current portion of long-term debt (Note 6)	8,047	1,917	60,962
Payables:			
Trade notes	17,334	17,823	131,318
Trade accounts	42,402	43,114	321,227
Due to unconsolidated subsidiaries and affiliates	183	611	1,386
Employees' savings deposits	7,689	7,898	58,250
Advances received from customers	12,139	8,613	91,962
Accrued income taxes	1,055	2,936	7,993
Other current liabilities	17,724	18,445	134,273
Total current liabilities	174,134	155,929	1,319,197
Long-term Liabilities:			
Long-term debt (Note 6)	16,877	20,027	127,856
Reserve for retirement allowance (Note 7)	1,505	1,338	11,402
Other long-term liabilities	110	—	833
	18,492	21,365	140,091
Foreign currency translation adjustment	—	152	—
Minority Interests	7,245	6,928	54,886
Contingent Liabilities (Note 10)			
Shareholders' Equity:			
Common stock, par value ¥50 per share:			
Authorized-576,000,000 shares	17,070	17,070	129,318
Issued and outstanding-202,025,158 shares (1997-202,025,158 shares)			
Capital surplus (Note 8)	12,751	12,751	96,598
Legal reserve (Note 9)	3,304	3,066	25,031
Retained earnings	20,676	27,743	156,636
Less: Treasury stock	(1)	(1)	(7)
Total shareholders' equity	53,800	60,629	407,576
Total Liabilities and Shareholders' Equity	¥253,671	¥245,003	\$1,921,750

Consolidated Statements of Income and Retained Earnings

Year ended March 31, 1998, 1997 and 1996

	Millions of yen	Millions of yen	Millions of yen	Thousands of U.S. dollars (Note1)
	1998	1997	1996	1998
Net Sales	¥222,772	¥235,104	¥217,089	\$1,687,667
Cost of sales	175,905	181,475	165,077	1,332,614
Selling, general and administrative expenses	48,578	48,341	48,533	368,015
Operating Income (Loss)	(1,711)	5,288	3,479	(12,962)
Other Income (expenses):				
Interest, dividends and other income	776	1,324	1,394	5,879
Interest expense and notes receivable discount charges	(1,582)	(2,303)	(2,564)	(11,985)
Profits on securities sold	3,814	1,991	2,082	28,894
Write-down of securities	(3,992)	(959)	(225)	(30,242)
Miscellaneous, net	43	728	436	325
Income (Loss) Before Income Taxes	(2,652)	6,069	4,602	20,091
Income Taxes (Note 2)	1,698	4,333	3,378	12,864
Minority Interests	463	444	443	3,508
Equity in earnings of affiliates	46	76	4	349
Amortization of Consolidation Difference	—	20	—	—
Net Income (Loss)	(4,767)	1,348	785	(36,114)
Retained Earnings:				
Balance at the beginning of the year	27,743	28,143	28,524	210,174
Decrease due to change in consolidation of subsidiaries	—	(25)	—	—
Increase due to change in equity methods of affiliates	—	258	—	—
Increase due to merger in consolidated subsidiaries	—	—	12	—
Transfer to legal reserve	(238)	(210)	(140)	(1,803)
Cash dividends paid	(1,818)	(1,616)	(808)	(13,773)
Bonuses to directors and statutory auditors	(244)	(155)	(230)	(1,848)
Balance at the end of the year	20,676	27,743	28,143	156,636

	Yen	Yen	Yen	U.S. dollars (Note1)
	1998	1997	1996	1998
Amounts per share of common stock:				
Net income (loss)	(¥23.60)	¥6.68	¥3.89	(\$0.18)
Cash dividends applicable to the year	4.00	9.00	4.00	0.03

See accompanying notes.

Consolidated Statements of

Cash Flows

Year ended March 31, 1998, 1997 and 1996

	Millions of yen	Millions of yen	Millions of yen	Thousands of U.S.dollars (Note 1)
	1998	1997	1996	1998
Cash Flows From Operating Activities:				
Net income (loss)	(¥4,767)	¥1,348	¥785	(\$36,114)
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:				
Depreciation and amortization	8,046	6,863	7,962	60,955
Change in receivables-trade	9,109	(12,515)	(10,300)	69,008
Change in inventories	(3,478)	(1,424)	(2,879)	(26,348)
Change in payable-trade	(1,649)	8,383	261	(12,492)
Increase in cash due to newly consolidation	—	40	—	—
Other	917	298	2,747	6,946
Net cash provided by (used in) operating activities	8,178	2,993	(1,424)	61,955
Cash Flows From Investing Activities:				
Additions to marketable securities	(274,063)	(245,603)	(253,936)	(2,076,235)
Proceeds from sale of marketable securities	266,332	243,270	249,585	2,017,667
Additions to investments in securities and advances to affiliates	(1,248)	(3,102)	(1,069)	(9,455)
Additions to property, plant and equipment	(6,122)	(4,309)	(7,944)	(46,379)
Net cash used in investing activities	(15,101)	(9,744)	(13,364)	(114,402)
Cash Flows From Financing Activities:				
Change in short-term debt	2,988	2,211	(3,730)	22,636
Proceeds from long-term debt	5,021	2,311	8,100	38,038
Repayment of long-term debt	(2,041)	(3,855)	(2,713)	(15,462)
Proceeds from issuance of commercial paper	75,000	21,000	10,000	568,182
Repayment of commercial paper	(65,000)	(9,000)	(5,000)	(492,424)
Repayment of bonds	—	(8,000)	—	—
Cash dividends paid	(1,818)	(1,616)	(808)	(13,773)
Net cash provided by financing activities	14,150	3,051	5,849	107,197
Net Increase (Decrease) In Cash	7,227	(3,700)	(8,939)	54,750
Cash and Time Deposits at Beginning of Year	11,853	15,553	24,492	89,795
Cash and Time Deposits at End of Year	19,080	11,853	15,553	144,545
Supplemental Information of Cash Flows:				
Cash paid during the year for:				
Interest	1,608	2,345	2,591	12,182
Income taxes	3,640	3,521	2,772	27,576

See accompanying notes.

Notes to Consolidated Financial Statements

1. Basis of consolidated financial statements

The Company, a Japanese corporation, maintains its records and prepares its financial statements in Japanese yen. The books of account reflect accounting principles customarily followed by Japanese enterprises in general under the requirement of the Japanese Commercial Code and tax laws.

The accompanying consolidated financial statements of

MEIDENSHA CORPORATION and its consolidated subsidiaries have been prepared in conformity with generally accepted accounting principles and practices in Japan.

The accompanying 1998 U.S.dollar financial statements have been translated from Japanese yen, only for convenience, at the rate of ¥132=U.S.\$1, the rate prevailing on March 31, 1998.

2. Summary of significant accounting policies

a) Principles of Consolidation

The accompanying consolidated financial statements include the accounts of the Company and its 20 consolidated subsidiaries. All significant intercompany accounts and transactions have been eliminated on consolidation. The Company's remaining subsidiaries, whose net and gross assets and net sales are not significant in the aggregate in relation to the comparable figures in the consolidated financial statements, have not been consolidated.

Investments in unconsolidated subsidiaries and affiliates (i.e. companies owned 20 percent to 50 percent) are carried at cost or less. Accordingly, income from unconsolidated subsidiaries and affiliates is only recognized on the receipt of dividends, and unrealized profits arising from transactions between consolidated companies and unconsolidated subsidiaries and affiliates, if any, have not been eliminated on consolidation.

The excess of the company's investments in consolidated subsidiaries over its equity in the net assets at the date of acquisition was not material and has been fully amortized.

b) Marketable securities and investments in securities

Marketable securities and investments in securities listed in Japanese stock markets are mainly valued at their cost or at their listed stock exchange price at the end of the financial year, whichever is the lower. Investments in securities unlisted in stock markets are stated at cost. Investment income is recognized when dividends or interest are received.

c) Inventories

Inventories are stated at cost, which is mainly determined by the average method as to raw materials and plant supplies and the specific identification method as to finished products, semi-finished products and work in process.

d) Property plant and equipment and depreciation

Property, plant and equipment are stated at cost and depreciation is provided on the declining balance method over the estimat-

ed useful lives of assets as prescribed by Japanese income tax regulations.

e) Investments in unconsolidated subsidiaries and affiliates

The equity method is applied to the investments in THAI MEIDENSHA CO., LTD. MEIDEN ELECTRIC ENGINEERING SDN. BHD. and JARDINE-MEIDEN ENGINEERING CO., LTD. Investments in all other unconsolidated subsidiaries and affiliates are carried at cost.

f) Reserve for retirement allowance

Under the terms of the Company and certain consolidated subsidiaries' retirement plan, substantially all employees are entitled to a non-contributory funded pension plan. Annual contributions, which consist of current period costs and amortization of prior service costs over years, are determined on an actual method and charged to income when paid. The Company and consolidated subsidiaries provide severance benefits for the directors and statutory auditors based on established guidelines.

g) Income taxes

Income taxes are based on taxable income and charged to income for the year to which it relates. Tax effects of temporary difference between tax and financial reporting purpose are generally not recorded. However, the Consolidated Financial Statements reflect the tax effect only resulting from the elimination of intercompany profit and the adjustment of allowance for bad debt.

h) Amounts per share of common stock

The computation of net income (loss) per share is based on the weighted average number of shares of common stock outstanding during the year.

Cash dividends per share presented in the consolidated statements of income and retained earnings represent the cash dividends declared applicable to each respective year, including dividends paid after the end of the year.

	Millions of yen	Millions of yen	Thousands of U.S.dollars (Note1)
	1998	1997	1998
3. Inventories			
Inventories as of March 31, 1998 and 1997 were as follows.			
Finished products	¥2,466	¥2,316	\$18,682
Semi-finished products	3,575	3,190	27,083
Work-in-process	26,628	23,666	201,727
Materials and supplies	2,006	2,025	15,197
Total	¥34,675	¥31,197	\$262,689
4. Investment securities in unconsolidated subsidiaries and affiliates			
Investments in unconsolidated subsidiaries and affiliates in which the Company had direct equity ownership as of March 31, 1998 and 1997 were as follows:			
Equity in net assets			
Subsidiaries	¥1,055	(¥624)	\$7,992
Affiliates	1,031	1,388	7,811
Total	2,086	764	15,803
Book value			
Subsidiaries	1,038	908	7,864
Affiliates	340	321	2,575
Total	¥1,378	¥1,229	\$10,439
5. Short-term borrowings			
Short-term borrowings are represented by notes.			
Short-term borrowings as of March 31, 1998 and 1997 were as follows:			
Bank loans	¥40,561	¥37,572	\$307,281
6. Long-term debt			
Long-term debt as of March 31, 1998 and 1997 consisted of the following:			
1997 consisted of the following:			
4.8% to 6.5% mortgage bonds:	¥10,000	¥10,000	\$75,757
1.75% to 5.5% loans from government owned banks	1	1	8
1.45% to 7.5% loans from banks and insurance companies	12,624	10,643	95,636
2.2% to 4.6% loans from agricultural cooperative organizations	2,299	1,300	17,417
Less: Current portion	(8,047)	(1,917)	(60,962)
Total	¥16,877	¥20,027	\$127,856

The annual maturities of long-term debts (on page 24) are as follows:

Year ending March 31	Millions of yen	Thousands of U.S.dollars (Note1)
1999	¥8,047	\$60,962
2000	5,866	44,439
2001	6,168	46,727
and thereafter	4,843	36,690

7. Reserve for retirement allowance

Unamortized prior service cost under the non-contributory funded pension plan amounted to ¥13,174 million (\$99,803 thousand) at March 31, 1998.

8. Capital surplus

Capital surplus consisted of the following:

	Millions of yen	Thousands of U.S.dollars (Note1)
Capital in excess of par value of common stock	¥12,329	\$93,401
Reevaluation surplus	422	3,197
Total	¥12,751	\$96,598

Under Japanese law, previously in force, companies were permitted to carry out a partial reevaluation of certain assets to take account of the decline in the value of money. In the years 1950 to 1954 the property, plant and equipment accounts were increased by a total of ¥695

million as a result of these reevaluations and a corresponding amount was credited to capital surplus. The depreciation of revalued assets charged to operations, and deductible for tax purposes, is based on the higher amounts.

9. Legal reserve


Under the Japanese Commercial Code, the Company is required to appropriate as a legal reserve a portion of retained earnings equal to at least 10 percent of cash dividends and of bonuses to directors and statutory auditors in each financial period until the reserve equals 25 per-

cent of the par value of common stock issued and outstanding. This reserve is not available for dividends, but may be used to reduce a deficit by resolution of a shareholders' meeting or may be capitalized by resolution of the Board of Directors.

10. Contingent liabilities

Contingent liabilities as of March 31, 1998 for trade notes discounted and endorsed in the ordinary course of business, and loans guaranteed on behalf of employees

amounted to approximately ¥1,156 million (\$8,758 thousand) and ¥3,197 million (\$24,220 thousand), respectively.



Report of Independent Public Accountants

To the Shareholders and the Board of Directors of

MEIDENSHA CORPORATION :

We have audited the accompanying consolidated balance sheets of MEIDENSHA CORPORATION (a Japanese corporation) and subsidiaries as of March 31, 1998 and 1997 and the related consolidated statements of income and retained earnings and cash flows for each of the three years in the period ended March 31, 1998, expressed in Japanese yen. Our audits were made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the consolidated financial statements referred to above present fairly the consolidated financial position of MEIDENSHA CORPORATION and subsidiaries as of March 31, 1998 and 1997, and the consolidated results of their operations and their cash flows for each of the three years in the period ended March 31, 1998 in conformity with accounting principles generally accepted in Japan applied on a consistent basis.

Also, in our opinion, the U.S. dollar amounts in the accompanying consolidated financial statements have been translated from Japanese yen on the basis set forth in Note 1.

Tokyo, Japan
June 26, 1998

Asahi & Co.

Asahi & Co.

Overseas Offices, Subsidiaries and Affiliates

● **Hong Kong CORPORATION**
MEIDENSHA CORPORATION
6/F Kerry Godown (Kwai Chung)
4-6 Kwai Tai Road
Kwai Chung, N.T., Hong Kong
Phone : 2503-2468 Facsimile : 2887-8046

● **Korea CORPORATION**
MEIDENSHA CORPORATION
Royal Building, No.410, 5 Dangju-Dong,
Chongro-ku, Seoul, Korea
Phone : 2-736-0232/0233 Facsimile : 2-736-0234

● **Malaysia CORPORATION**
MEIDENSHA CORPORATION
22nd Floor, Menara Boustead, 69 Jalan Raja Chulan,
50200 Kuala Lumpur, Malaysia
Phone : 3-248-3776/3669/3896 Facsimile : 3-241-2881
Telex : 30191 MEIDEN MA

● **Singapore CORPORATION**
MEIDENSHA CORPORATION
5, Jalan Pesawat, Jurong Industrial Estate,
Singapore 619363
Phone : 268-8222 Facsimile : 264-4292

● **Taiwan CORPORATION**
MEIDENSHA CORPORATION
Room 1103, 11th Floor, No.142 Chung Hsiao East Road,
Sec.4 Taipei, Taiwan, R.O.C.
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● **The United Kingdom CORPORATION**
MEIDENSHA CORPORATION
Chancery House, 53/64 Chancery Lane,
London WC2A 1QS, U.K.
Phone : 171-405-6474/6396 Facsimile : 171-404-0447
Telex : 266608 MEIDEN G

● **The United States CORPORATION**
MEIDENSHA CORPORATION
The American Center Building, Suite 1110
27777 Franklin Road, Southfield Michigan 48034, U.S.A.
Phone : 248-353-2540 Facsimile : 248-353-3150

● **MEIDEN PACIFIC (CHINA) LTD.**
6/F Kerry Godown (Kwai Chung)
4-6 Kwai Tai Road
Kwai Chung, N.T., Hong Kong
Phone : 2503-2468 Facsimile : 2887-8046

● **JARDINE-MEIDEN ENGINEERING CO., LTD.**
6/F Kerry Godown (Kwai Chung)
4-6 Kwai Tai Road
Kwai Chung, N.T., Hong Kong
Phone : 2481-2881 Facsimile : 2487-5039

● **P.T. MEIDEN ENGINEERING INDONESIA**
19th Floor, Summitmas I, Jl.Jenderal Sudirman
Kaveling 61-62 P.O.BOX 20KBY/Summitmas I
Jakarta Selatan 12069, Indonesia
Phone : 21-520-0612/1584 Facsimile : 21-520-0240
Telex : 45235 MEIDEN IA

● **MEIDEN ELECTRIC ENGINEERING SDN. BHD.**
22nd Floor, Menara Boustead, 69 Jalan Raja Chulan,
50200 Kuala Lumpur, Malaysia
Phone:3-2411424/2427388/2420788 Facsimile:3-2481613
Telex:30191 MEIDEN MA

● **MEIDEN QUARTZ (M) SDN. BHD.**
Lot 5&7, Kawasan Perindustrian Alor Gajah,
Peringkat 3, Alor Gajah, 78000 Melaka, Malaysia
Phone : 6-5563987-9 Facsimile : 6-5563986

● **MEIDEN METAL ENGINEERING SDN. BHD.**
Lot 6, Peringkat 3, Kawasan Perindustrian Alor Gajah,
78000 Melaka, Malaysia
Phone : 6-5568790-2 Facsimile : 6-5568795

● **MEIDEN SINGAPORE PTE. LTD.**
5, Jalan Pesawat, Jurong Industrial Estate,
Singapore 619363
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Telex : RS 34494 MEITRA

● **MEIDEN QUARTZ (S) PTE. LTD.**
Alexandra Distripark, Block 2 # 11-18 to 29
Pasir Panjang Road, Singapore 119481
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Telex : RS 33185 MEWQZT

● **THAI MEIDENSHA CO., LTD**
Floor 11, TST Tower Building, No.21,
Vibhavadi-Rangsit Road, Chatuchak, Bangkok 10900,
Thailand
Phone : 2-273-8954-61 Facsimile : 2-273-8966
Telex : 84228 THAIMEW TH

● **MEIDEN ELECTRIC (THAILAND) LTD.**
896 Moo 2, Bangso-in Industrial Estate,
Udomsornayuth Rd., Klongjij, Bang Pa-in,
Ayudhaya 13160, Thailand
Phone : 35-258258-262 Facsimile : 35-221388

● **MEIDEN EUROPE LTD.**
Chancery House, 53/64 Chancery Lane,
London WC2A 1QS, U.K.
Phone : 171-405-6474/6396 Facsimile : 171-404-0447
Telex : 266608 MEIDEN G

Consolidated Subsidiary Companies (As of March 31, 1998)

MEIDEN ENGINEERING CO., LTD.

Capital (¥2,360million)
Engineering service and other service affairs
7-9, Ōsaki 3-chōme, Shinagawa-ku, Tokyo 141-8607
Japan
Phone: Tokyo 3-3490-7201
Facsimile: 3-3490-5550

MEIDEN TSUSHIN KOGYO & Co., Ltd.

Capital (¥1,400million)
Quartz crystal units
1-37, Tōri-Machi 1-chōme, Yonezawa-shi, Yamagata 992-0025 Japan
Phone: Yonezawa 238-23-3305
Facsimile: 238-23-3308

MEIDEN SHOJI Co., Ltd.

Capital (¥300million)
Sales of electric products and components
Mitomi New Building, 20-18, Ebisu 1-chōme, Shibuya-ku, Tokyo 150-0013 Japan
Phone: Tokyo 3-5449-3700
Facsimile: 3-5449-3701

KOFU MEIDENSHA CORPORATION

Capital (¥200million)
Manufacture and sales of electric motors, mainly
15-11, Jōto 3-chōme, Kōfu-shi, Yamanashi 400-0861
Japan
Phone: Kōfu 552-33-5161
Facsimile: 552-33-5171

Meiden Plant Engineering & Construction Co., Ltd.

Capital (¥150million)
Constructing service
Meiko Building, 5-5, Ōsaki 5-chōme, Shinagawa-ku, Tokyo 141-8616 Japan
Phone: Tokyo 3-5487-6426
Facsimile: 3-5487-6487

MEIDEN CHEMICAL CO., LTD.

Capital (¥95million)
Insulating varnish and molded instrument transformer
1-17, Ōsaki 2-chōme, Shinagawa-ku, Tokyo 141-0032
Japan
Phone: Tokyo 3-3492-5251

Meiden Kohsan Co., Ltd.

Capital (¥80million)
Sales of products and materials and agent service of insurance
Meiko Building, 5-5, Ōsaki 5-chōme, Shinagawa-ku, Tokyo 141-8616 Japan
Phone: Tokyo 3-3490-3737
Facsimile: 3-3490-3906

MEIDEN SOFTWARE CORPORATION

Capital (¥70million)
Engineering and programming of software
809, Oka-Isshikitorimachi, Numazu-shi, Shizuoka 410-0012 Japan
Phone: Numazu 559-23-4966
Facsimile: 559-23-1191

MEIDEN FOUNDRY INDUSTRIAL Co., Ltd.

Capital (¥50million)
Casting
4, Nyogetsu, Heisaka-chō, Nishio-shi, Aichi 444-0305
Japan
Phone: Nishio 563-59-6181
Facsimile: 563-59-4132

MEIDEN SYSTEM ENGINEERING Co., Ltd.

Capital (¥50million)
System engineering of plant
Meiko Building, 5-5, Ōsaki 5-chōme, Shinagawa-ku, Tokyo 141-8616 Japan
Phone: Tokyo 3-5487-6500
Facsimile: 3-5487-6516

Numazu Meiden Kohsan Co., Ltd.

Capital (¥30million)
Sales of products and materials and buildings maintenance service
515, Kaminakamizo, Higashi-makado-aza, Numazu-shi, Shizuoka 410-0865 Japan
Phone: Numazu 559-21-1140
Facsimile: 559-24-1474

Meiden Kankyo Service Co., Ltd.

Capital (¥30million)
Maintenance and control service of water treatment equipment
Meiko Building, 5-5, Ōsaki 5-chōme, Shinagawa-ku, Tokyo 141-8616 Japan
Phone: Tokyo 3-3490-0630
Facsimile: 3-3490-0623

HOKUTO DENKO CORPORATION

Capital (¥25million)
Manufacture and sales of electric sensors
22-13, Himonya 4-chōme, Meguro-ku, Tokyo 152-0003
Japan
Phone: Tokyo 3-3716-3235
Facsimile: 3-3793-8787

MEIDEN SYSCON Co., Ltd.

Capital (¥20million)
Manufacture and sales of switchgear and relays
726-1, Ōsuwa Numazu-shi, Shizuoka 410-0873 Japan
Phone: Numazu 559-24-4630
Facsimile: 559-22-4013

Meiden Kiden Kogyo Co., Ltd.

Capital (¥20million)
Machining and repairing service
1-17, Ōsaki 2-chōme, Shinagawa-ku, Tokyo 141-8565
Japan
Phone: Tokyo 3-3491-2611
Facsimile: 3-3490-4226

MEIDEN PRINTING CORPORATION

Capital (¥20million)
Printing and copy service
Maruki Building, 13-7, Nishigotanda 1-chōme, Shinagawa-ku Tokyo 141-0031
Japan
Phone: Tokyo 3-3490-4767
Facsimile: 3-3779-3083

Nagoya Meiden Kohsan Co., Ltd.

Capital (¥10million)
Sales of products and materials and buildings maintenance service
496-1, Ittan-gosewari, Nishi-biwajima-chō, Nishikasugai-gun, Aichi 452-0007 Japan
Phone: Aichi 52-503-7016
Facsimile: 52-504-2785

MEIDEN SINGAPORE PTE. LTD.

Capital (S\$10million)
Manufacture of transformer and contracting service
5, Jalan Pesawat Jurong Industrial Estate, Singapore 619363
Phone: 268-8222
Facsimile: 264-4292

MEIDEN QUARTZ (M) SDN. BHD.

Capital (MYR8million)
Quartz crystal units
Lot 5&7, Kawasan Perindustrian Alor Gajah, Peringkat 3, Alor Gajah, 78000 Melaka, Malaysia
Phone: 6-5563987
Facsimile: 6-5563986

MEIDEN QUARTZ (S) PTE. LTD.

Capital (S\$2million)
Quartz crystal units
Alexandra Distripark Block 2# 11-18 to 29 Pasir Panjang Road, Singapore 118481
Phone: 273-1088
Facsimile: 278-6795

Board of Directors

Chairman



Keiji Kojima

President



Shigeo Seko

Managing Directors

Kôji Yano
Tôru Nakamura
Yûji Aoyagi
Takeshi Kawade
Kimihiro Kaneko
Toyoaki Ishii
Nobuyuki Shimomura
Harumichi Yamashita
Takao Shibue
Tatsuji Matsui

Executive Vice Presidents



Keiji Kataoka



Tomoyasu Ichikawa

Directors

Masao Kamei
Kenzo Nakamura
Masaaki Obana
Kensuke Ikuji
Nobuo Takahashi
Hiroyasu Yagi
Masaaki Ôishi
Masaaki Hino
Hisao Takeuchi
Jirô Iwashita
Tôru Niwa

Senior Managing Directors



Mineo Itakura



Etsuo Sannomiya



Hideo Yoshihiro



Masaru Sueki

Senior Corporate Auditors

Takamasa Hasebe
Hiroshi Kômoto
Junji Hashimura

Corporate Auditors

Yasuo Yoshino
Haruhisa Kawabe

(As of June 26, 1998)



Corporate Data

Corporate Name

MEIDENSHA CORPORATION
(Kabushiki Kaisha Meidensha)

Head Office

Riverside Building, 36-2,
Nihonbashi Hakozaicho,
Chuo-ku, Tokyo 103-8515 Japan

Founded

1897

Common Stock

Par Value ¥50 (\$0.38)
Authorized 576,000,000 shares
Issued 202,025,158 shares
¥17,070 million
(\$129,318 thousand)

Shareholders

14,400

Average Holding

14,030 shares

Transfer Agent

The Chuo Trust and Banking Co., Ltd.