



**Annual Report 1998**  
*Year ended March 31, 1998*

L O C A L T O U C H , G L O B A L R E A C H



**Nisshinbo Industries, Inc.** (the “Company”) was founded in 1907 as a manufacturer of cotton yarns and threads, and quickly assumed a position of leadership in the industry. The Company’s history has been characterized by strategic moves taken in advance of competitors and designed to raise productivity, improve quality and add value. Today, Nisshinbo is a



total textiles manufacturer, controlling operations from spinning to finishing. This, together with its accumulated high levels of technology, gives the Company an advantage in the development of truly distinctive products and in quality control. Through the application in other fields of technologies and expertise originally developed in the textiles area, Nisshinbo has diversified its operations into the manufacture of automobile brakes, machine tools, chemical products, papers, and others. These non-textile lines have grown steadily, and now account for almost 50% of net sales. Nisshinbo has targeted certain strategic products to form the basis of future growth: High value-added finishing processing and products in the textiles field, including SUPER SOFT, SSP (SUPER SOFT PEACHPHASE), new-generation anti-lock brake systems, CNC machine tools, non-fluorocarbon polyurethane foams, new carbon products, fine papers, and computer color matching systems. The Company and its subsidiaries and affiliates are focused on the creation of a comprehensive range of top-quality products which appeal to customers globally.



## Contents

Financial Highlights .....	1
Business Lineup .....	2
Local Touch, Global Reach .....	4
Interview with the President .....	4
In-depth, Broad-ranging R&D .....	6
Quicker to Market .....	8
Bridgeheads for Globalization .....	10
Review of Operations .....	12
Financial Review .....	16
Six-Year Summary .....	17
Financial Section .....	18
Board of Directors .....	38
Corporate Data .....	38
Organization Chart .....	39

The paper used for this Annual Report is from Nisshinbo’s VENT NOUVEAU series of fine papers.

# Financial Highlights

(Years ended 31st March)

## Non-Consolidated:

	(millions of yen)		(millions of US dollars)
	1997	1998	1998
Net Sales	¥167,272	¥170,318	\$ 1,310
Net Income	1,968	1,808	14
Shareholders' Equity	166,163	166,948	1,284

## Per Share:

	(yen)		(US dollars)
	1997	1998	1998
Net Income	¥ 8.32	¥ 7.64	\$ 0.06
Shareholders' Equity	702.76	706.08	5.43
Cash Dividends	7.00	7.00	0.05

## Consolidated:

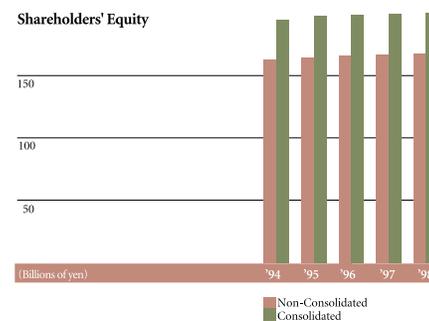
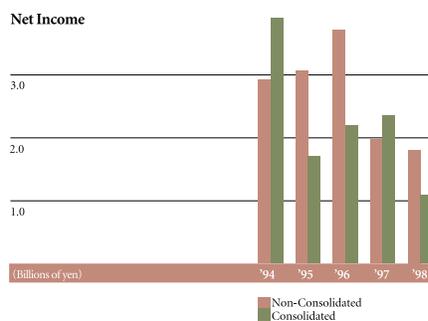
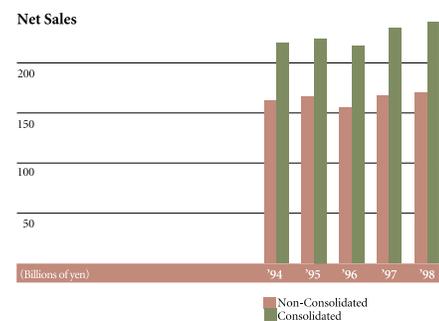
	(millions of yen)		(millions of US dollars)
	1997	1998	1998
Net Sales	¥234,268	¥240,249	\$ 1,848
Net Income	2,359	1,087	8
Shareholders' Equity	198,758	199,373	1,534

## Per Share:

	(yen)		(US dollars)
	1997	1998	1998
Net Income	¥ 9.98	¥ 4.60	\$ 0.04
Shareholders' Equity	840.62	843.21	6.49

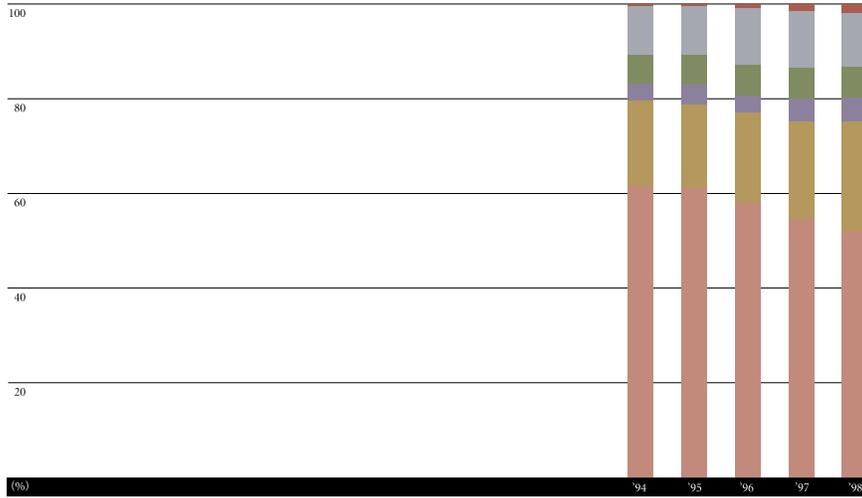
### Note

The United States dollar amounts in this report are given for convenience only and represent translations of Japanese yen at the rate of ¥130=US\$1.



# Business Lineup

## Non-Consolidated Sales Composition

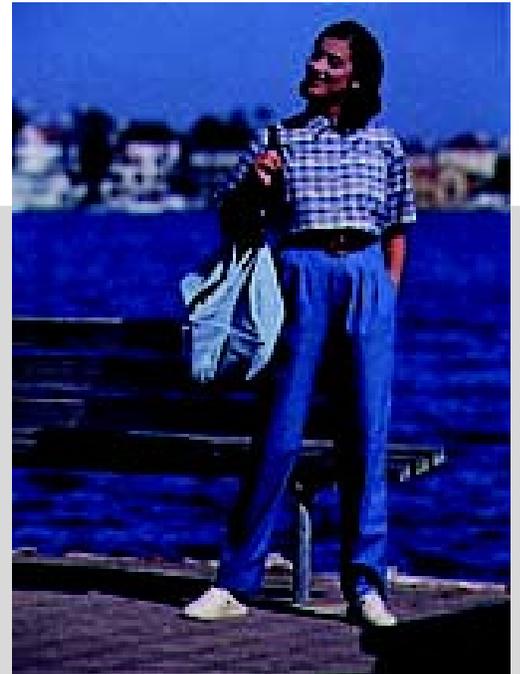


Sales by Sector in Fiscal 1998

Sector	(%)
Textiles	51.9
Automobile Brakes	23.3
Machine Tools	4.9
Chemical Products	6.7
Papers	11.3
Others	1.9

## Textiles

Textile products have been the mainstay of Nisshinbo since its foundation. These products are distinguished by their quality and competitiveness. Nisshinbo has the top share in domestic markets for shirt materials (around 40%), textile sheets for bedding (around 40%), denim (around 40%), Tetron & cotton blended uniform materials (almost 25%), and spandex for total-support panty hose (almost 50%). The Company's state-of-the-art production facilities and unique, comprehensive in-house production system, which includes the finishing process, allow the manufacture of products that overseas makers cannot match for quality. An ability to meet the precise needs of customers is a particularly strong point of Nisshinbo. Nisshinbo's original textile products include *MOBILON* spandex and *OIKOS* non-woven cotton fabrics. The *SUPER SOFT*, *SSP* and *CELTOPIA* finishing processes are also original.



## Non-textiles

### Automobile Brakes

Nisshinbo is one of Japan's leading makers of automobile brakes and friction materials, and this sector has an important role in the Company's drive to diversification. Product development emphasis is on asbestos-free friction materials, new concept brakes, Anti-lock Brake Systems (ABS) and Traction Control Systems (TCS). The latest original products in the ABS field are the compact, lightweight, low-cost *NT20i* and *NT20Si*, targeted at markets worldwide. The Company has also developed a stability control system, which makes it easier for the driver to control movement of the car and thus enhances safety.

In parallel with the development of its own technologies, Nisshinbo exchanges technologies and collaborates with major overseas brake manufacturers.



## ***Machine Tools***

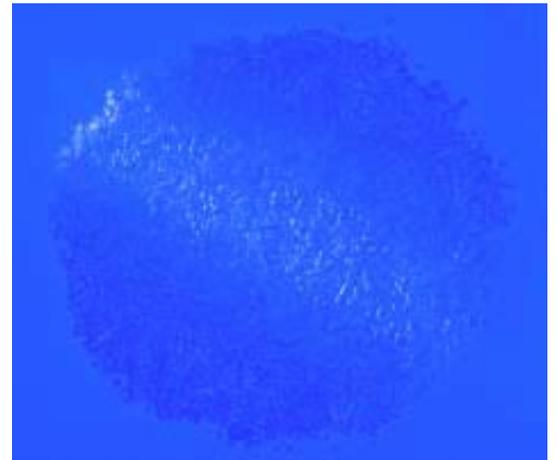
Nisshinbo is an acknowledged specialist in the manufacture and sale of customized machine tools and CNC turret punch presses, laser cutting machines and press brakes. The Company also produces cross-flow fans. Modular units for FMS and CNC hardware/software systems are developed and manufactured for the automotive, electronics and aerospace industries. Through subsidiaries and joint ventures, Nisshinbo is actively expanding sales of machine tools overseas as well as in Japan.



## ***Chemical Products***

Nisshinbo produces rigid-type polyurethane foams for application as heat-insulation material, and flexible types used as cushion material. Processed products include *AIRLITE-FRU*, a lightweight, high-strength, corrosion-resistant glass fiber-reinforced polyurethane foam widely used in the water treatment and construction industries, and *SETFOAM* for civil engineering applications. The Company is also a pioneer in the introduction of environment-friendly non-fluorocarbon polyurethane foam for application as heat-insulation material in the construction field. Our original polyurethane elastomer *MOBILON* is used in various industrial products and consumer items. In addition, Nisshinbo offers new carbon products for application in semiconductor production and other electronics fields.

Other materials include *CARBODILITE* and electromagnetic wave shield materials and molded *METTON™* products produced and marketed by Nisshinbo.



## ***Papers***

Nisshinbo manufactures a wide range of paper products. These include household papers, such as tissue paper, toilet paper and kitchen-use paper towels, fine papers used in printing and packaging, and synthetic papers. In each of these areas, the Company occupies a top-ranking position. Value-added products of note include *VENT NOUVEAU* natural-feel fine paper for high-quality printing and synthetic papers for ink-jet printing.

Nisshinbo is also involved in label printing and the manufacture of label printers. The product lineup in this field includes small-size, high-speed printers and integration software for information processing, printing and distribution.



## ***Others***

Nisshinbo develops and supplies the production systems which integrate the *CHOSHOKU SENKA* fuzzy logic computer color matching (CCM) system, manufacturing process support system and automatic inspection system, all based on original technologies.

The Company is also engaged in the real estate business, leasing a new office building on the site of its former headquarters, and shopping centers built on land previously occupied by factory facilities. It also leases land used for model homes. Plans to extend this real estate leasing business for shopping centers are under way.



## Interview with the President

**Q.** *Can you outline recent developments at Nisshinbo, and Nisshinbo's results for fiscal 1998, ended March 31, 1998?*

**A.** First of all, let me tell you that Mr. Tatsuo Tanabe stood down as chairman of the Company and assumed the position of Senior Advisor to the Board as of June 26, 1998. During his term of office as president as well as chairman, the Japanese economy underwent drastic structural changes. In response, Mr. Tanabe focused on a shift to high value-added products, both in textiles and non-textiles, constantly anticipating market trends. I am confident that his efforts will continue to bear fruit, and serve as a sound foundation for Nisshinbo's success in the future.

Turning to our non-consolidated business results, net sales increased 1.8% over fiscal 1997 to ¥170,318 million (US\$1,310 million), while operating income declined 3.2% to ¥3,036 million (US\$23 million). Net income was down 8.1% to ¥1,808 million (US\$14 million). Sales of textiles amounted to ¥88,479 million (US\$681 million), down 3.1%. Sales of non-textiles rose 7.8% to ¥81,839 million (US\$630 million). The ratio of non-textile sales to total sales increased 2.7 percentage points to 48.1%.

During fiscal 1998, there was virtually no growth in the Japanese economy. Consumer spending fell sharply under the impact of a rise in the consumption tax rate beginning April 1997. Business confidence, already low, suffered as a result of the failure of certain financial institutions and increased fears about non-performing loans held by banks. Under these circumstances, Nisshinbo concentrated on improving its business efficiency while continuing the shift to high value-added products. These efforts resulted in a slight increase in net sales and limited the drop in net income to less than 10%. The Textile Division posted a decline in sales but a modestly higher profit, thanks to the Company's



Akihiro Mochizuki, President

restructuring efforts. The Non-textile Division recorded a rise in total sales, fueled by growth in sales of ABS, but a decline in profit, due mainly to intensified competition.

On a consolidated basis, net sales for fiscal 1998 amounted to ¥240,249 million (US\$1,848 million), up 2.6% over fiscal 1997. Operating income was ¥3,989 million (US\$31 million), down 12.2%. Net income came in at ¥1,087 million (US\$8 million), a decrease of 53.9%. These decreases were due mainly to declines in market demand faced by the Company and one of its domestic affiliates accounted for on the equity method, as well as foreign exchange losses incurred by a consolidated subsidiary in Thailand and an affiliate in Indonesia, also accounted for on the equity method.

**Q.** *What do you mean by "Local Touch, Global Reach," the theme of this year's annual report?*

**A.** The global economy is now a reality, and we aim to be a leading global company, capable of responding to local market trends in all major mar-

kets. The theme “Local Touch, Global Reach” encapsulates that aim. We intend to apply our expertise cultivated in the domestic market to our overseas operations, utilizing our strong technological base and product development capabilities to achieve our goals. In Japan, even though the recession is expected to continue into fiscal 1999, the same theme will help us to clearly delineate our efforts to respond quickly and flexibly to changing market needs.

**Q.** *What are Nisshinbo’s strengths in terms of technology and product development?*

**A.** Nisshinbo has a broad range of technological expertise, accumulated over 90 years of operations. Our emphasis has been on the development of leading-edge material technologies and processing techniques, and these have allowed us to create a diversified range of products. **Our ability to innovate has earned us an excellent reputation in the market.**

When we identify a business field with great potential, we swiftly **invest in facilities to establish versatile development and production systems** that allow us to secure a leading market position.

**Q.** *How are you planning to proceed with business globalization?*

**A.** **Our high value-added products are highly competitive internationally.** We are promoting the further globalization of our business by balancing export sales and local production on the basis of particular local needs.

During fiscal 1998, we strengthened our textile production network in Asia with the addition of two joint venture operations: Shanghai Kaikai Non-Ironing Garment Co., Ltd., which has started

Nisshinbo has created a diverse range of unique products, such as all-cotton wrinkle-free materials for shirts, lightweight compact ABS, non-fluorocarbon polyurethane foam, new carbon products and computer color matching systems.

During fiscal 1998, the Company carried out a number of investments to expand and improve its production facilities. These included expansion of production capacity for ABS at the Hamakita Plant, upgrading of facilities for production of household papers at the Shimada Plant, expansion of production facilities for friction materials at the Tatebayashi Plant, installation of new carbon production facilities at the Kawagoe Plant, and introduction of leading-edge spinning facilities at the Fujieda Plant and other plants.

Nisshinbo’s products have gained an excellent reputation in overseas markets. For example, the Company’s all-cotton SSP has received a “Global Recognition Award” from Cotton Incorporated of the United States.

production of dress shirts, and P.T. Gistex Nisshinbo Indonesia, which will undertake dyeing and finishing.

In order to increase export sales, we refined our textile organization related to exports.

In the non-textile sector, Nisshinbo Automotive Manufacturing, Inc., a wholly-owned subsidiary of Nisshinbo Automotive Corporation, has begun construction of a plant for the production of automobile brake friction materials. In Thailand, our subsidiary Nisshinbo Somboon Automotive Co., Ltd. completed construction of a factory for the production of automobile brake parts.

We intend to strengthen our international textile and non-textile operations by capitalizing on these ties with overseas subsidiaries and affiliates.

**Q.** *What is your policy with regard to dividends?*

**A.** We declared an annual per share dividend of ¥7.00 (US\$0.05) for fiscal 1998. We intend to keep dividends at this level until such time as profits justify an increase. This decision is based on a judgement as to the level of retained earnings needed to sustain future development.

  
Akihiro Mochizuki  
President

## In-depth, Broad-ranging R&D

*Nisshinbo is noted for its development of new technologies and its ability to transfer them from one field to another, and for its constant focus on commercial potential.*

### Unique, Diverse Technologies

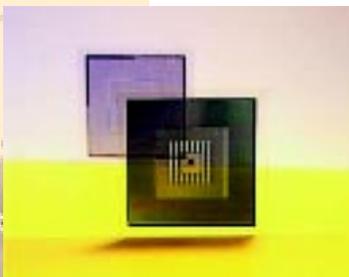
Building on its accumulated textile-related technologies and expertise, Nisshinbo has successfully widened its business base. Today, Nisshinbo is also active in the areas of polymer chemistry, mechatronics, control systems, electronic engineering, advanced materials and biotechnology.

In the textile field, high value-added products developed with original technologies include *SUPER SOFT*, *SSP*, *TPP (TREPESCA PEACHPHASE)*, *CELTOPIA*, and health/comfort products include *Shizen-no-Yuragi* materials, *IONAGE* healing materials and *SUNSHELTA* ultra-violet shield materials. Environment-friendly materials include *ECOLOGIA*, produced by recycling PET bottles, and *OIKOS* non-woven all-cotton fabrics.

In the non-textile field, the refinement of applied technologies for such materials as polyurethanes has resulted in *MOBILON*, a new polyurethane elastomer, carbon products, molded *METTON™* products and *CARBODILITE*, which all have a wide application potential. In the areas of automobile brakes and machine tools, Nisshinbo is capitalizing on its state-of-the-art electronics engineering and precision machinery technologies to develop products that are more compact or more advanced, or both.

Nisshinbo's involvement in biotechnology is based on technologies originally adopted for the production of textiles and chemical products. In view of the growth in the medical and pharmaceutical fields, our research and development efforts are now focused on DNA reagents, and the development of markets for such products.

Another aspect of our expanding technology is CCM systems technology, which originated from our textile technology and was further developed using fuzzy logic. This technology is now applied not only in the dyed textiles field, but also in the fields of painting, printing, papers, resin, transparent solids and others. Recent refinements cover CCM for metallic color painting of automobile bodies and CCM for white and fluorescent colors.



**New Businesses, New Markets**

Nisshinbo's recent capital investment in R&D facilities remains focused on fields with great commercial potential.

A good example is the Development Center for Paper Products and Coating Technologies at the Fuji Plant, which became operational in April 1998. The Center will develop original paper products, such as those combining synthetic paper and fine paper.

Investments in the automobile brakes R&D field include the Vehicle Research Facility adjacent to the Asahi Testing Ground at the Chiba Plant. Equipped with cutting-edge testing devices, the Vehicle Research Facility is used to measure the performance of brakes for various types of automobiles and ABS. A new track at the Testing Ground, scheduled for completion in October 1998, will allow on-road testing on a variety of surfaces under different conditions. A testing ground for testing under snow/ice conditions was constructed in Hokkaido.

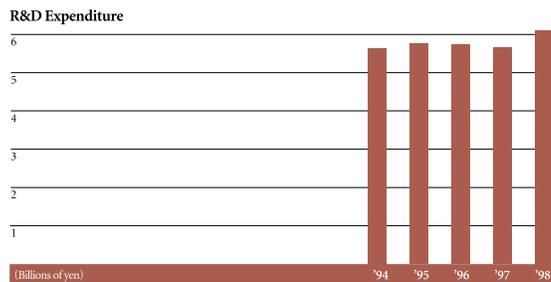
In the biotechnology field, the Tokyo Research Center is being expanded to keep pace with the growing market for "DNA Origomar," an essential product for DNA analysis.

For fiscal 1998, Nisshinbo's research and development expenditure totaled ¥6,111 million (US\$47 million), an increase of 7.9% over fiscal 1997. As of the end of March 1998, the total number of patents held by Nisshinbo within and without Japan was 644. Patent applications outstanding totaled 1,592.



*Pattern of electromagnetic wave shield material (inset, opposite)*

*Carbon products, shaped for specific applications (inset)*



## Quicker to Market

*Nisshinbo's goal in terms of product development is clear: to bring high-quality products to market in anticipation of fast-changing trends, thereby satisfying the emerging demands of consumers faster. Nisshinbo's depth of technological know-how is fundamental in the creation of superior, attractive products that set the pace in the global market.*

### Making the Most of Materials and Technology

Nisshinbo seeks to unlock hitherto undiscovered properties and applications of materials in order to create products that satisfy existing or as yet unimagined needs within society.

For example, *SUPER SOFT* processing technology for cotton cloth has been extended from shirts, uniform and bedding materials to blouse, pants, knitted and denim materials. In response to the trend toward more individualistic, less formal business wear, *SUPER SOFT HI-NATURAL* is now used for order-made shirts. The development of *SSP* processing has created a significant market for shirts featuring wrinkle-free properties.

In the non-textiles sphere, the application of Nisshinbo technology has allowed reductions in the size and weight of ABS, from the *NT20* through the *NT20i* to the *NT20Si*. As a consequence, the percentage of new vehicles fitted with ABS has increased.

Nisshinbo is currently looking for new applications in growing fields for its carbon-related technology.

In recent years, “environment-friendly and amenity” has become an important theme. In this category, Nisshinbo textile products include *Shizen-no-Yuragi*, *OIKOS*, and *IONAGE*, a material used for pants and suits. Non-textile products noted for their human and environment-friendly properties include non-fluorocarbon polyurethane foam, various types of recycled papers, and paper produced from materials other than pulp.

Collaboration with other companies is yet another aspect of Nisshinbo's strategies for progress. In cooperation with TEIJIN Limited, a synthetic fiber manufacturer, and The Japan Wool Textile Co., Ltd., Nisshinbo set up the Triangle Committee. The first product developed by the committee was *ECOLOGIA*, a fiber made from recycled PET bottle material that is used for work uniforms. Another was *HARMONIX*, a brand name for a wide range of men's “business casual” wear made from newly developed materials.



### Development-oriented Production

Nisshinbo is constantly refining its production system, linking it tightly with product development. In the textile field, the transition to a development-oriented production system is well under way. Production capacity for specialty yarns will be expanded to 100,000 spindles by the end of 1998, mainly at the Hamamatsu Plant. This will facilitate the simultaneous production of a larger number of newly developed products. In the non-textile field, new carbon product capacity at the Kawagoe Plant is to be increased, making it Nisshinbo's main production center for these products. The emphasis is on products where high growth is anticipated, such as *AIRLITE-FRU*, whose applications as a lightweight, high-strength, corrosion-resistant material are being widened, *MOBILON* polyurethane elastomer, and certain papers such as kitchen-use paper towels.



### Chosen Globally

Nisshinbo products are widely respected for their quality, both in Japan and overseas. They have permeated markets internationally, either through exports or local production. *SSP* shirts are winning market share throughout Europe, especially the U.K., and elsewhere, while Nisshinbo's *MOBILON* spandex for panty hose has been very well received in Europe and is also expanding its market there. Nisshinbo's brake friction materials are used by the "Big Three" automobile manufacturers of the U.S., and several Korean companies recently opted for Nisshinbo's ABS.

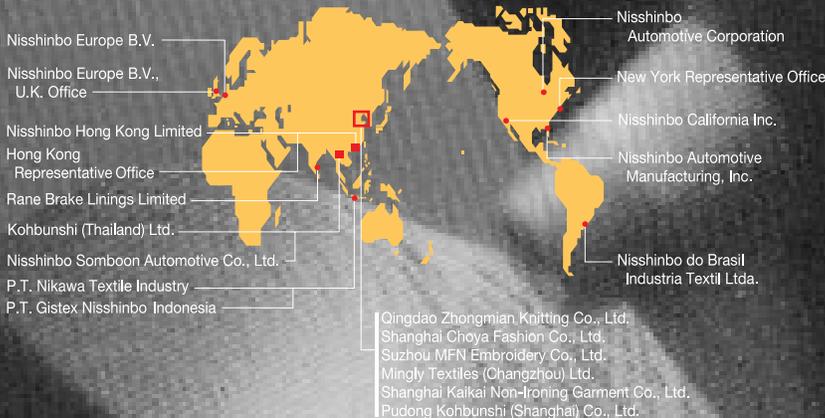
*SUPER SOFT is applied to many high-quality textile products (inset, opposite)*

*SUPER SOFT HI-NATURAL products come in a variety of colors and designs (inset)*

## Bridgeheads for Globalization

*Nisshinbo is determined to make the world market its "home ground." That is to say, its overseas business strategies will be increasingly fine-tuned to meet the requirements of different areas of the world for different types of products.*

### INTERNATIONAL NETWORK



### Overseas Bases

Nisshinbo's overseas network has been steadily expanded to ensure that nuances of demand in the different regions of the world are picked up quickly. Not only is overseas local production geared to meet local needs, but it is also exported to third countries.

Production bases in Asia for textiles, automobile brakes and chemical products have been established as local subsidiaries, affiliates or joint ventures, depending on the local circumstances. In fiscal 1998, Shanghai Kaikai Non-Ironing Garment Co., Ltd. was established to manufacture SSP shirts for the Chinese market, and P.T. Gistex Nisshinbo Indonesia was established as a dyeing and finishing specialist for value-added textiles destined for Southeast Asia and China.

In the United States, Nisshinbo's automobile brakes business is growing. With production facilities located in Michigan, Nisshinbo is ideally placed to offer efficient supply to the "Big Three" as well as Japanese manufacturers. Production capacity at Nisshinbo Automotive Corporation was increased during fiscal 1998, and construction work has begun on a plant to be operated by Nisshinbo Automotive Manufacturing, Inc. in Georgia. The plant is scheduled to start production in spring 1999. Nisshinbo is seeking to expand sales in the U.S. and is also considering exports to South America from U. S. plants.

### Strengthened Export Capability

Nisshinbo continues to promote exports of its high value-added products, including textiles, chemicals, automobile brakes, ABS and machine tools. Technical and cross-licensing agreements play an important role in expanding exports.

With regard to quantity, an organizational restructuring will allow all Company departments in charge of specific textiles products to directly handle the sales of those products in both domestic and overseas markets, and to be responsible for the related sales operations of overseas subsidiaries and affiliates and the activities of regional representative offices. To meet rising exports to Europe, production capacity at the Tokushima Plant is being expanded for the MOBILON spandex yarns used for panty hose.

With regard to quality, the Mechatronics Division, the subsidiary Nisshinbo Mechatronics, Inc., and the ABS Division have acquired ISO9001 certification. In the textile field, the Miami Plant has received ISO14001 certification for environment management systems, and the Tokushima Plant is currently working toward that same objective.

*Artist's impression of Nisshinbo Automotive Manufacturing, Inc. plant, Georgia*



### Creating Clean Energy for Asia

During fiscal 1998, Nisshinbo was commissioned to produce the manufacturing equipment for the solar energy modules of Spire, a U.S. company. Spire commands 80% of the world market for such modules. The order came via Marubeni Corp., which manufactures and markets the modules in Asia under license. It is expected

that power generation through solar energy will grow in importance in Asia as the energy demands of the region continue to rise. That Nisshinbo was engaged to participate in this fast-growing sector is testament to the Company's reputation for engineering excellence.

### International Technical Agreements

#### *As licensee:*

- Cluett Pebody & Co., Inc. of the U.S.A. for textiles finishing technology
- Beyeler Machines SA of Switzerland for CNC press brake manufacturing technology
- BBA Group PLC of the U.K. for friction materials technology\*
- LucasVarity PLC of the U.K. for drum brake technology\*
- LucasVarity PLC of the U.K. for commercial vehicle disc brake technology
- ITT Automotive Europe GmbH of Germany for passenger car disc brake technology\*
- ITT Automotive Europe GmbH of Germany for TCS technology
- ITT Automotive Europe GmbH of Germany for NT20/MK20 ABS and TCS technologies\*

#### *As licensor:*

- Rane Brake Linings Limited of India for friction materials technology
- Daedong Brake Manufacturing Co., Ltd. of the Republic of Korea for friction materials technology
- BBA Group PLC of the U.K. for friction materials technology\*
- Heng Tong Machinery Co., Ltd. of Taiwan for friction materials and passenger car disc brake technologies
- LucasVarity PLC of the U.K. for drum brake technology\*
- ITT Automotive Europe GmbH of Germany for passenger car disc brake technology\*
- ITT Automotive Europe GmbH of Germany for NT20/MK20 ABS and TCS technologies\*
- Mando Machinery Corporation of the Republic of Korea for drum brake technology
- Nisshinbo Sornboon Automotive Co., Ltd. of Thailand for friction materials and drum brake assembly technologies

\*Cross-licensing agreements

# Review of Operations

SUPER SOFT products, available through COMFORT PROPOSAL and other channels



flecting a strong market presence. Applications of new products combining *SUPER SOFT* and specialty yarns were extended from shirts, blouses, and printed textiles into fields such as pants, jackets, coats, and knitted products. Sales of these products increased throughout the year, regardless of season.

The market for basic blue denim showed an upturn, with particularly strong sales of *SUPER SOFT* denim. Export sales also showed strong growth, contributing to increases in both sales and profit.

Domestic sales of *MOBILON* spandex were weak. Helped by higher export sales of spandex for panty hose, however, overall sales and profit showed steady growth.

*OIKOS* non-woven all-cotton fabrics expanded their range of applications in the fields of household goods, including bacillus-eliminating wet towels and gas range wiping materials, as well as medical, sanitary materials, nursing goods, and civil engineering/agricultural materials.

## Textiles

In fiscal 1998, ended March 31, 1998, the Japanese textile industry faced business conditions even more difficult than those in fiscal 1997, ended March 31 1997. Consumer spending, already low, declined under the impact of a rise in the consumption tax rate effective April 1, 1997 and a general lack of confidence inspired by bankruptcies and fears about non-performing loans among financial institutions.

The Textile Division responded by developing new products to strengthen its lineup, energizing sales activities, expanding exports, and restructuring its business. The Division posted a modest increase in profit, thanks to the withdrawal from the lace business and a downsizing of the synthetic fabrics business, and a depreciation of the yen. Sales declined, due mainly to low consumer demand and a fall in market selling prices. Sales of the Textile Division amounted to ¥88,479 million

(US\$681 million), a drop of 3.1% from fiscal 1997 and accounting for 51.9% of total sales, down 2.7 percentage points. Domestic sales declined by 6.5% to ¥78,188 million (US\$601 million), while export sales recorded an increase of 34.0% to ¥10,290 million (US\$79 million).

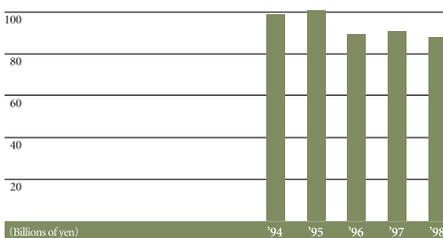
Sales of yarns, knitted products, and household textiles were sluggish due to weak consumer spending. Export sales of lightweight textiles, mainly high-class and value-added products, were up. Sales of materials for shirts, casual wear, and uniforms remained low due to a further drop in consumer spending in the second half of fiscal 1998, a decline in purchases by companies, and inventory adjustments by apparel manufacturers.

Domestic sales of *SSP* shirt materials were stable. Export sales of Nisshinbo's original, all-cotton *SSP* increased, re-



Entry at Annual Nisshinbo Fashion Contest

Sales of Textiles



### Joint Venture for Shirt Production in Shanghai

With the aim of exploiting the latent demand for wrinkle-free shirts in the Chinese market, Nisshinbo Industries, Inc., Shanghai Kaikai (Group) Co., Ltd. (a top shirt manufacturer in China), Marubeni Corp. and CHOYA CORP. established a joint venture, Shanghai Kaikai Non-Ironing Garment Co., Ltd., to manufacture shirts in Shanghai. The joint venture is capitalized at US\$1.5 million, with Nisshinbo holding a 15% stake. The company will manufacture 640,000 shirts a year by the year 2000, with a sales target of ¥1 billion.

We placed particular emphasis on an expansion of sales of our original brand products in the household and nursing goods fields.

*COMFORT PROPOSAL*, our direct marketing business, posted a slight decline in sales for the first time since the commencement of its services as a result of weak consumer spending.

The difficult business climate is expected to continue well into the next term. To counter this, we will focus on a further expansion of export sales, intra-overseas region sales activities and advancement into overseas markets while accelerating product development, refining production systems, and responding to a variety of user needs. In fiscal 1998, we reorganized the Textile Sales Division, establishing overseas sales systems for each particular product with a view to reinforcing exports. In addition, we enhanced sales support to our overseas subsidiaries and affiliates by increasing staff numbers at our representative offices in New York and Hong Kong.



SUPER SOFT HI-NATURAL,  
ideal for "Business Casual" apparel

## Non-textiles

Sales of Non-textiles increased 7.8% over fiscal 1997 to ¥81,839 million (US\$630 million), due in large part to higher sales of ABS. Profit, however, declined as a result of intensified competition. Sales of Non-textiles accounted for 48.1% of total sales, an increase of 2.7 percentage points. Export sales of Automobile Brakes and Machine Tools were particularly strong, contributing to a 48.2% increase in total export sales to ¥5,294 million (US\$41 million).

### Automobile Brakes

Sales of Automobile Brakes rose 14.6% to ¥39,588 million (US\$305 million), fueled by an increase in sales of ABS.

Sales of brake-related products, such as friction materials and brake assemblies, were slightly down from fiscal 1997. The decline was accounted for by weak sales of commercial-use vehicles in both the domestic and Southeast Asian markets, which outweighed a small increase in domestic automobile production.

Sales of ABS posted an increase of

70.8% to ¥13,428 million (US\$103 million), thanks to increases in the number of car models fitted with our ABS and the proportion of cars equipped with ABS. Our competitive position was further improved by the release of *NT20Si*.

Overseas, an expansion of production facilities at Nisshinbo Automotive Corporation was completed in order to meet a rise in demand in the North American market. Nisshinbo Automotive Manufacturing, Inc. started construction of a plant during fiscal 1998. Start-up is scheduled for 1999.

The automobile industry faces an even more adverse business environment in fiscal 1999 both at home and overseas, and



Our ABS is fitted in the Mitsubishi Chariot Grandis  
(© Mitsubishi Motors Corporation)

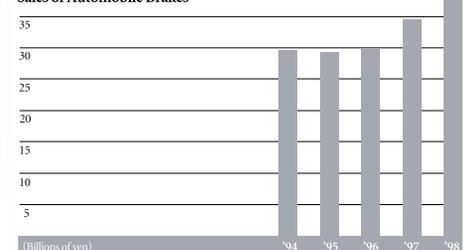
### Excellent Prospects for *NT20Si*

In August 1997, we introduced *NT20Si* ABS as a follow-up to the *NT20i*, released during fiscal 1997. The *NT20Si* is 20% lighter and 30% more compact than *NT20i*, and features improved

low-noise characteristics. It is cost-competitive and can be used in cars from compacts to the 3,000cc class. *NT20Si* has already been employed by several automakers in their new models and is expected to develop into a major product for Nisshinbo.



Sales of Automobile Brakes

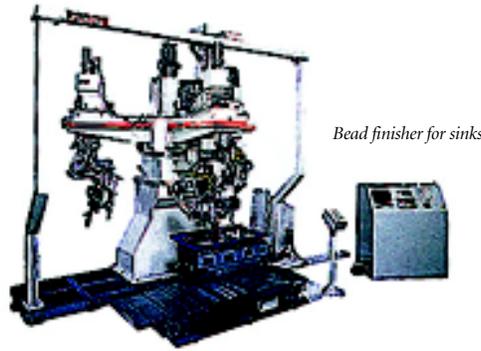


the demand for brake-related products is likely to decline. In the ABS sector, it will be difficult to increase sales, due to yet stronger competition and the proportion and unit volume of cars equipped with ABS likely to peak.

We must enlarge our business domain by concentrating on the development of new products and expansion of our overseas operations. It is also essential to reduce manufacturing costs. With a view to developing new products, Nisshinbo pressed ahead with the upgrading of its R&D facilities, refined and expanded brake-testing facilities at its Chiba Plant, and constructed a winter testing ground in Hokkaido.

**Machine Tools**

Sales of Machine Tools increased 4.0% to ¥8,327 million (US\$64 million). This was due to a steady increase in capital investment on the part of our major client industries, which continued from fiscal 1997, and growth of overseas demand, mainly in the U.S. and Asian markets, fueled by a depreciation of the yen. Growth in export sales to the automobile-related industry,



*Bead finisher for sinks*

one of our main clients, and a rise in domestic demand contributed to an increase in sales of customized machine tools. Sales of general-purpose machine tools fell, affected by a drop in housing demand and related capital investment.

During fiscal 1998, Nisshinbo, under license, started development, design and production of manufacturing equipment for solar energy modules ordered by Marubeni Corporation. The demand for solar energy equipment for home-use as well as office-use power generating systems is expected to increase.

**Chemical Products**

Sales of Chemical Products increased 4.9% to ¥11,436 million (US\$88 million).

Sales of polyurethane products, our major line in this sector, declined due to weak demand for rigid polyurethane foams used as heat-insulation material for housing, pushing down profit.

Sales of polyurethane elastomers posted

steady growth, thanks to a sharp increase in sales of apparel-use products with excellent elasticity and waterproofness.

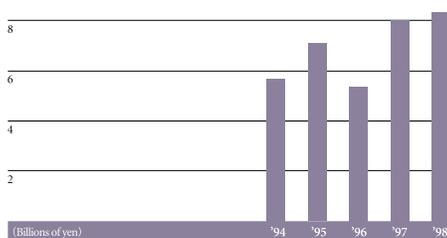
Our carbon products, used mainly in semiconductor manufacturing equipment, posted decreases in both sales and profit. This was accounted for by weakness in the domestic semiconductor industry and the severe economic downturn in South Korea, one of our major markets. We intend to concentrate on development of new applications for our new carbon products.

During fiscal 1998, we installed production facilities for new carbon products at the Kawagoe Plant and started construction of a new production line at the Chiba Plant to make *AIRLITE-FRU* synthetic wood products on a commercial scale. We also began construction of a new production line for elastomers at the Tokushima Plant.

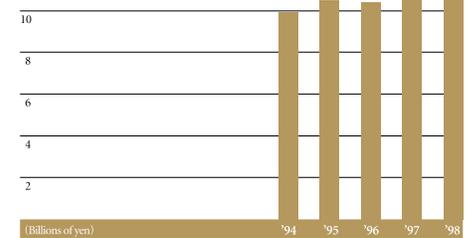


*Polyurethane elastomer pellet*

Sales of Machine Tools



Sales of Chemical Products



## Papers

Sales of Papers decreased 3.3% to ¥19,236 million (US\$148 million).

In the household papers field, low consumer spending and an excess of supply which triggered discount competition among retailers caused drops in both sales and profit.

Sales of fine papers leveled off, but our efforts to cut unit costs through an improvement in productivity helped to improve profit.

In the synthetic papers field, good sales of original products and molded products using synthetic papers helped to increase sales and profit.



Computer mouse pads made from synthetic papers

Sales of label system products remained at the same level as fiscal 1997. However, we were able to increase profit through our rationalization and cost-cutting efforts.

With the aim of establishing a sound foundation for future development, we expanded production of household papers at the Shimada Plant and established an integrated product development center at our Fuji Plant.

## Others

Sales of this sector totaled ¥3,252 million (US\$25 million), an increase of 24.9% over fiscal 1997. Sales broke down as follows:

real estate leasing ¥2,492 million (US\$19 million), and Computer Color Matching (CCM) systems and other products ¥760 million (US\$6 million).

Our leasing business proceeded with the rental of unused land in Miai, Tosaki and Shimada for a model home and shopping centers. At Miai, we leased a permanent housing exhibition site sponsored by the Asahi Shimbun newspaper. At Tosaki, a plan has been adopted for a department store and shopping mall adjacent to the existing shopping center and their integration into one large shopping center (scheduled to open in April 2000). Construction of a shopping center at the Shimada site went ahead smoothly and the center is scheduled to open in March 1999.



Artist's impression of shopping center in Shimada

### Synthetic Paper Mouse Pad Kit

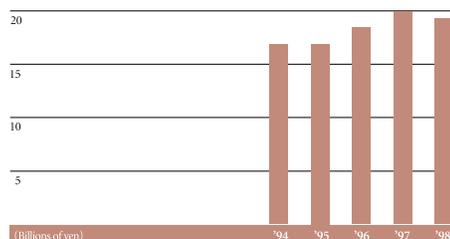
Nisshinbo's *FREE STAGE*, a kit to make computer mouse pads, uses our synthetic paper, thereby highlighting the wide range of uses for these papers. It is environment-friendly in that it does not contain vinyl chloride and therefore does not generate toxic gases when incinerated. A number of junior high schools have adopted the kits as educational tools.

### CCM Systems Business Strengthened

Our CCM systems business is expanding. In order to accelerate this progress, on July 1, 1998 we set up a new department for the development and sales of CCM systems.

Meanwhile, during fiscal 1998 Nisshinbo products were in the limelight at the Sixth Osaka International Textile Machinery Show, the largest textile machinery exhibition in Asia. Among the Nisshinbo exhibits to attract the attention of visitors from the industry were the original *CHOSHOKU SENKA* CCM system, fluorescent CCM system, on-line color analyzing system and automatic inspection system.

Sales of Papers



Sales of Others

