

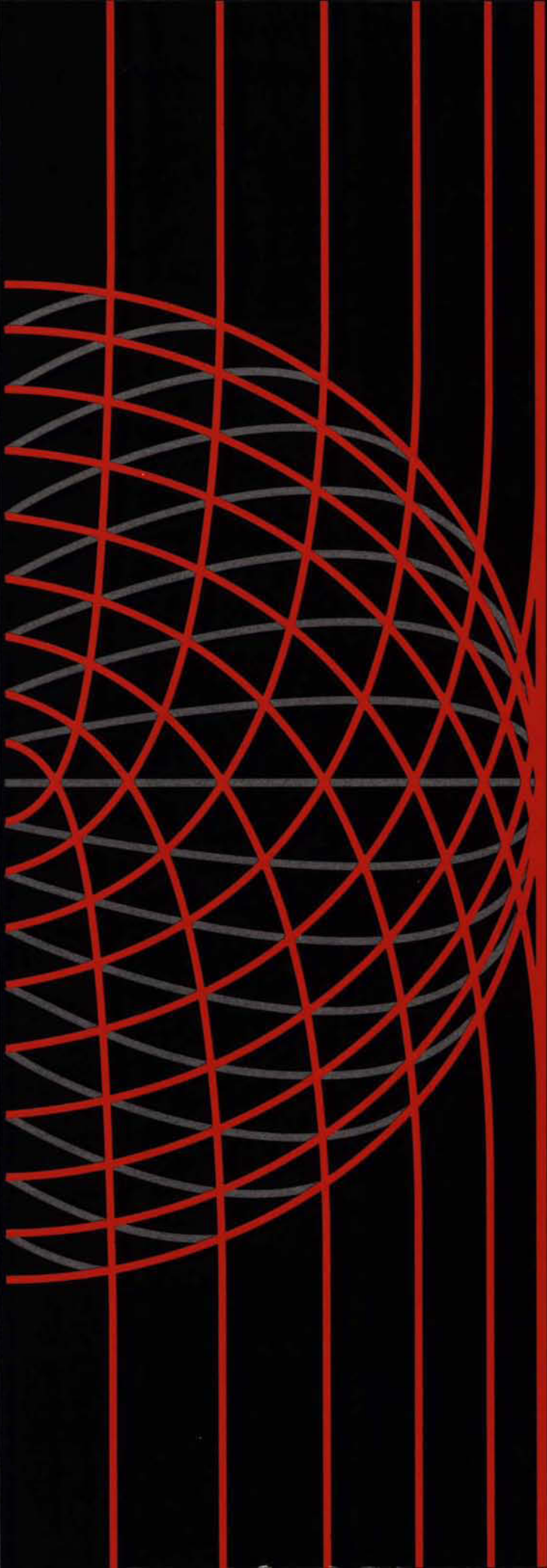
Food Processing Equipment

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I N D U S T R Y P R O F I L E

1990-1991

FOOD PROCESSING EQUIPMENT

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FOREWORD

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In a rapidly changing global trade environment, the international competitiveness of Canadian industry is the key to growth and prosperity. Promoting improved performance by Canadian firms in the global marketplace is a central element of the mandates of Industry, Science and Technology Canada and International Trade Canada. This Industry Profile is one of a series of papers in which Industry, Science and Technology Canada assesses, in a summary form, the current competitiveness of Canada's industrial sectors, taking into account technological, human resource and other critical factors. Industry, Science and Technology Canada and International Trade Canada assess the most recent changes in access to markets, including the implications of the Canada-U.S. Free Trade Agreement. Industry participants were consulted in the preparation of the profiles.

Ensuring that Canada remains prosperous over the next decade and into the next century is a challenge that affects us all. These profiles are intended to be informative and to serve as a basis for discussion of industrial prospects, strategic directions and the need for new approaches. This 1990-1991 series represents an updating and revision of the series published in 1988-1989. The Government will continue to update the series on a regular basis.

Michael H. Wilson
Minister of Industry, Science and Technology
and Minister for International Trade

Structure and Performance

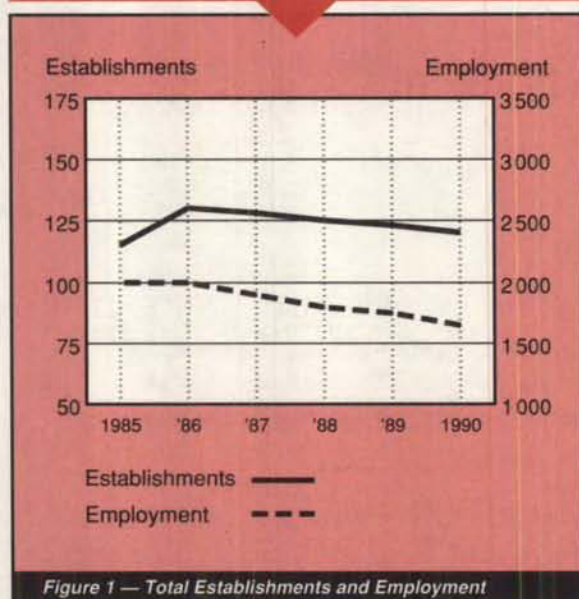
Structure

This industry is a producer of machinery, ancillary equipment, controls, and inspection equipment for sale to the food processing sector. The machinery that is designed and built by this industry is primarily used for processing foods such as meat, poultry, fish, baked goods, milk products, beverages and fresh produce for human consumption. The principal users of this equipment are the food and beverage processors, including some restaurants and fast-food operations.

As the industry's firms serve many other markets, they cannot be easily grouped into a homogeneous structure. Many products used by food processors, such as mixers, cookers, freezers, scales, filters, instrumentation, materials handling equipment and packaging equipment, are also used by other

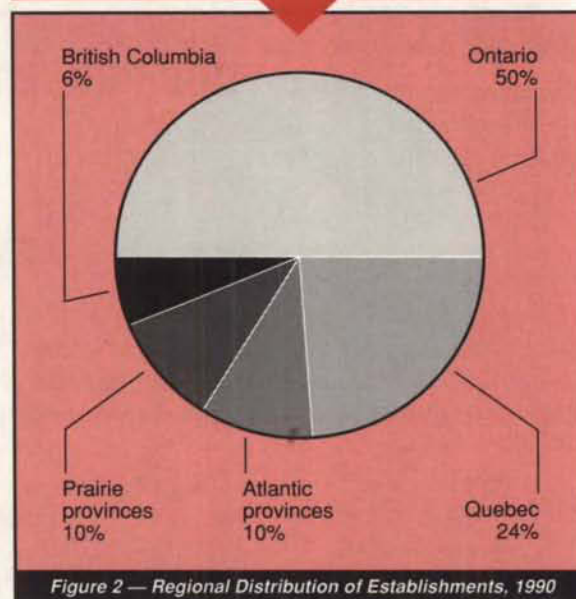
processing industries and are not covered by the data in this profile. Information on the industry, therefore, is derived from company data and should be taken only as indicative.

In 1990, there were approximately 120 establishments manufacturing food processing equipment in Canada and employing an estimated 1 650 people (Figure 1). Shipments were valued at \$79.7 million, of which exports accounted for \$58.8 million. The United States is Canada's principal foreign market, taking about two-thirds of Canada's exports. Exports, including bakery equipment, have gone to China, Algeria, Jordan and Indonesia, and other exports, such as sausage-processing equipment, have been sent to Europe. In 1990, imports to Canada totalled \$208.6 million. The United States and the European Community (EC) are the two primary sources of imports, accounting for about 60 and 34 percent, respectively.



Manufacturers in this industry are small, with an average of 14 employees, except for one company, Knud Simonsen Industries. The latter, a manufacturer of equipment for the meat processing sector, has more than 100 employees. Of the 120 establishments operating in Canada, about 90 were Canadian-owned. Approximately 74 percent of the establishments are located in Ontario and Quebec, with approximately 16 percent in the Western provinces and the balance in the Atlantic provinces (Figure 2). The latter establishments primarily produce fish processing equipment.

Canadian capability in the manufacture of food processing equipment is specialized. Most firms produce one or two products for niche markets. The industry's strongest manufacturing capability is in the bakery, meat, poultry and fish processing equipment subsectors. Thirty manufacturers of bakery equipment supply a wide range of standard and custom-engineered machinery, ranging from pizza ovens to complete mobile bakeries for military field camps. Twenty-one manufacturers of meat and poultry processing equipment supply a limited range of machinery, including smokehouses, meat-cutting band saws and continuous sausage-processing systems. Twelve manufacturers of fish processing equipment produce machinery such as fish unloaders and automatic fish descenders. The remaining firms manufacture a very diverse range of equipment, including flour and grist milling machinery and distilling, brewing and confectionery equipment. As a general rule, there are few imported components in the equipment manufactured in Canada.



Performance

The performance of the industry is linked to investments by food and beverage processors, whose level of activity is mainly influenced by population growth and consumer preferences. The industry is relatively mature. Shipments grew at an annual rate of 3.6 percent from 1983 to 1988, measured in constant 1988 dollars. Over the same period, the Canadian market grew at 1.6 percent annually in constant 1988 dollar terms. At the outset of the 1990–1991 recession, shipments remained level in current dollars but fell from \$78.0 million in 1988 to \$68.5 million in 1990 in constant 1988 dollars (Figure 3).

A high percentage of the industry's shipments are exported, averaging 66 percent annually since 1980, compared with a level of below 50 percent in the 1970s. This trend reflects the focus on specialized equipment design, particularly by a few firms that rely on export markets in specific product areas such as bakery and meat processing equipment. The majority of the small firms primarily serve the Canadian market.

Imports have consistently captured a significant share of the Canadian market, averaging nearly 90 percent during the 1980s. Approximately half of the imports of food processing machinery and components are in product areas such as vegetable processing, pasta processing and confectionery equipment, where little Canadian manufacturing capability exists. Even within the bakery, meat, poultry and fish processing equipment subsectors, areas where Canadian capability is strongest, there are imports of specialized equipment that is generally not produced in Canada.



Strengths and Weaknesses

Structural Factors

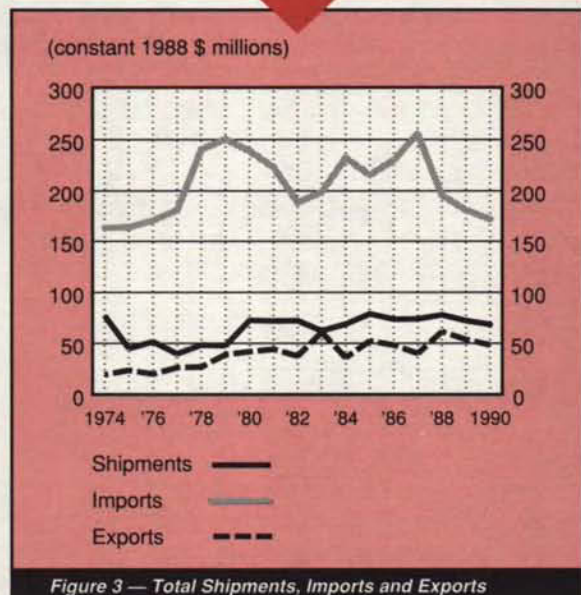
In common with most other machinery industries, Canadian capability in food processing equipment tends to be selective in the type and size of equipment produced. There are many areas of the market where Canada has either narrow or non-existent production capabilities. The subsectors with the strongest capabilities are bakery, meat, poultry and fish processing equipment. Firms in these subsectors are generally successful in the domestic and export markets because their products carry out unique functions to serve localized or particular user needs. The products often feature distinctive engineering.

The high degree of import penetration into Canada primarily reflects the following factors:

- the extremely wide range of sizes and types of machinery required by the food industry, often in small quantities, with the result that it is uneconomical for the Canadian industry to attempt to meet all requirements
- the tendency of Canadian subsidiary firms in the food industry to purchase the same kinds of machinery that are currently in place in the parent's facilities
- the established reputation of many foreign competitors with well-developed distribution and service networks in Canada

When compared with competitors in the EC and the United States, the majority of Canadian equipment producers lack the financial strength, the economies of scale, the technology, the marketing penetration and the after-sales service to compete in many offshore markets. Cash-flow problems are widespread, and many companies are unable to support product development, promotional activity and distribution networks comparable to those of larger firms. These factors have tended to limit the acceptance of small companies by major domestic and international food companies.

A particular weakness of the industry is that few Canadian manufacturers are large enough to be able to commit themselves to contracts containing performance clauses on entire systems. In addition, food product companies are building large, integrated plant installations. In Canada, there are few equipment manufacturers capable of undertaking these turnkey projects, which require systems design expertise and the installation of structural, mechanical, electrical and computerized process control systems. The vast majority of manufacturers in Canada specialize in niche markets that constitute only segments of integrated customers' plants. Nevertheless, the few that are large enough to compete show strength.



Existing market conditions in Canada are leading many smaller manufacturers to seek export business. Revenue from exports remained reasonably level from 1988 to 1990 but fell in real terms in line with the recession. About two-thirds of export shipments are to the United States.

Trade-Related Factors

Trade of food processing equipment between Canada and the United States is subject to the terms of the Canada-U.S. Free Trade Agreement (FTA). Under the FTA, duties are being eliminated in five annual, equal steps, which began 1 January 1989. The 1992 duty level under the FTA on most food processing equipment entering Canada from the United States is 1.8 percent. Imports to the United States from Canada are dutiable at 0.8 percent. Most food processing equipment imported into the United States from countries other than Canada is subject to a duty of 4.0 percent.

The agreement also provides for increased cross-border mobility for service personnel in both directions. Prior to the FTA, the lack of mobility had been a problem at times for Canadian exporters attempting to provide service for their machines in the United States.

Most food processing equipment imported into Canada from countries other than the United States enters under a Most Favoured Nation (MFN) tariff rate of 9.2 percent. However, under the federal Machinery Program, the duty otherwise payable on imports of machines, replacement parts, controls, attachments and accessories may be remitted if equivalent machinery is not available from Canadian producers. With tariff



rates falling on machinery imported from the United States while tariffs on other imports remained constant, Canadian imports have shifted to the United States from "other" countries. Equipment imported into the EC is subject to a duty of 3.8 percent. The Japanese tariff ranges from 4.2 to 6.0 percent on Canadian-made food processing equipment.

There are no non-tariff barriers that constitute a significant barrier to trade with the United States, Europe or Japan, although dietary preferences can make certain equipment unsaleable in some markets.

The replacement of the former federal manufacturers' sales tax (MST) by the goods and services tax (GST) has redressed a bias in the MST that worked against domestic producers of food processing equipment. Under the old tax system, imports were taxed at the border, thereby avoiding tax on warehousing, Canadian transportation and installation. Yet domestic producers paid tax on all these activities. Under the GST, tax is paid on both imports and domestically produced and installed goods, thereby no longer disadvantaging domestic producers.

The design and development of food processing machinery in Canada is quite limited. Only a few Canadian equipment manufacturers are capable of independently conducting their own product development; in general, the United States and the EC manufacture products with more advanced designs. In an effort to increase efficiency and productivity, major food processing companies are demanding product designs characterized by higher speeds, automation, ease of maintenance and high sanitary standards. Most Canadian manufacturers are restrained by their size and undercapitalization from carrying out research and development (R&D) projects that could improve product quality and performance. New technologies are usually purchased through licensing agreements or technology exchanges; however, Canadian technological developments are ongoing in meat processing machinery, milk container handling and crating machinery, form-fill seal packaging and a number of other areas.

Evolving Environment

In the future, food processing equipment design will incorporate new technologies to deal with ultrafiltration; gamma irradiation; microelectronics; microwaveable food containers; biotechnology; and low-calorie, ethnic and convenience foods. These new opportunities challenge Canadian manufacturers to design and supply machinery despite their limited R&D capability in these emerging technologies.

At the time of writing, the Canadian and U.S. economies were showing signs of recovering from a recessionary period.

During the recession, companies in the industry generally experienced reduced real demand for their outputs, in addition to longer-term underlying pressures to adjust. In some cases, the cyclical pressures may have accelerated adjustments and restructuring. With the signs of recovery, though still uneven, the medium-term outlook will correspondingly improve. The overall impact on the industry will depend on the pace of the recovery.

A number of factors may create a positive impact on food processing equipment demand. They are the increase in food consumption caused by population growth, fast-food restaurants, the ongoing commitment in most segments of the industry to higher productivity and integrated processing and packaging systems. In addition, many more companies are now adopting the global approach to marketing as the key to survival and expansion in the competitive food and beverage business. Industry sources expect the U.S. market to remain strong into the 1990s, with the annual sales revenue in that market expected to reach the U.S.\$10 billion level by 1995.

On 12 August 1992, Canada, Mexico and the United States agreed to the North American Free Trade Agreement (NAFTA). Subject to ratification or passing by the legislatures in each country, it will become effective on 1 January 1994. The NAFTA will phase out tariffs on virtually all Canadian exports to Mexico in time periods ranging from immediately to 10 years, eliminate Mexican import licensing requirements for most goods and open up bidding on major Mexican government procurement. It will also eliminate custom user fees by 1 January 1994, streamline customs procedures, and make them more certain and consistent. Further, it will liberalize Mexico's restrictive investment policies, thus providing opportunities for Canadian investors.

Additional clauses modify the FTA in the following areas. NAFTA covers rights over both transportation and intellectual property, clarifies North American content rules and obliges energy regulators to both avoid discrimination against NAFTA partners and minimize disruption of contractual arrangements. It improves dispute settlement mechanisms and reduces the scope for using standards as barriers to trade. It also extends the use of duty drawbacks or similar programs that provide for a refund or waiver of customs duties on materials used in the production of goods subsequently exported to another NAFTA country.

The economic integration of the EC after 1992 (Europe 1992) and the many changes that have taken place throughout Eastern Europe over the past year will create both opportunities and challenges for food processors and food processing machinery manufacturers. Companies that prepare themselves, perhaps through joint ventures or licensing agreements, are most likely to succeed in an expanded market area, even while being confronted with constraints such



as high costs of marketing and the International Standards Organization's "ISO 9 000 standards," which are establishing international standards often for both products and plants.

Competitiveness Assessment

A small number of Canadian food processing equipment manufacturers are internationally competitive in certain niche product lines. They are active in both domestic and export markets. Overall, however, the sector is composed of small firms, some with limited financial resources, which are under pressure to maintain adequate levels of marketing, technical and service support in an international marketplace.

Opportunities do exist, however, often at low cost, for globally oriented companies to secure technology from foreign firms through technology transfer, licensing agreements, and other means. Grasping these opportunities may allow Canadian manufacturers of new lines of food processing equipment to enter the North American and export markets.

For further information concerning the subject matter contained in this profile, contact

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PRINCIPAL STATISTICS^a

	1973	1983	1984	1985	1986	1987	1988	1989	1990
Establishments	N/A	N/A	N/A	115	130	128	125	123	120
Employment	N/A	N/A	N/A	2 000	2 000	1 900	1 800	1 750	1 650
Shipments									
(\$ millions)	12.2	44.8	53.5	66.1	64.6	69.0	78.0	80.7	79.7
(constant 1988 \$ millions)	43.3	62.3	68.9	78.9	73.6	74.0	78.0	72.2	68.5

^aISTC estimates.

N/A: not available

TRADE STATISTICS

	1973	1983	1984	1985	1986	1987	1988 ^a	1989 ^a	1990 ^a
Exports ^b									
(\$ millions)	5.5	43.7	27.8	43.8	42.3	37.3	61.4	59.4	58.8
(constant 1988 \$ millions)	19.5	60.8	35.8	52.3	48.2	40.0	61.4	53.8	48.4
Domestic shipments ^c									
(\$ millions)	6.7	1.1	25.7	22.3	22.3	31.7	16.6	21.3	20.9
(constant 1988 \$ millions)	23.8	1.5	33.1	26.6	25.4	34.0	16.6	18.4	20.1
Imports ^d									
(\$ millions)	46.0	143.1	180.3	180.6	202.4	238.1	195.7	200.0	208.6
(constant 1988 \$ millions)	163.5	199.0	232.4	215.6	230.5	255.3	195.7	181.1	171.8
Canadian market ^c									
(\$ millions)	52.7	144.2	206.0	202.9	224.7	269.8	212.3	221.3	229.5
(constant 1988 \$ millions)	187.3	200.5	265.5	242.2	255.9	289.3	212.3	199.5	191.9

^aIt is important to note that data for 1988 and after are based on the Harmonized Commodity Description and Coding System (HS). Prior to 1988, the shipments, exports and imports data were classified using the Industrial Commodity Classification (ICC), the Export Commodity Classification (XCC) and the Canadian International Trade Classification (CITC), respectively. Although the data are shown as a continuous historical series, users are reminded that HS and previous classifications are not fully compatible. Therefore, changes in the levels for 1988 and after reflect not only changes in shipment, export and import trends, but also changes in the classification systems. It is impossible to assess with any degree of precision the respective contribution of each of these two factors to the total reported changes in these levels.

^bSee *Exports by Commodity*, Statistics Canada Catalogue No. 65-004, monthly.

^cISTC estimates.

^dSee *Imports by Commodity*, Statistics Canada Catalogue No. 65-007, monthly.



SOURCES OF IMPORTS^a (% of total value)

	1983	1984	1985	1986	1987	1988 ^b	1989 ^b	1990 ^b
United States	70.0	69.0	65.0	63.0	60.2	56.2	58.6	60.3
European Community	26.0	26.0	29.0	30.0	35.5	30.5	30.5	33.9
Asia	—	1.0	2.0	1.0	0.7	2.1	2.2	2.1
Other	4.0	4.0	4.0	6.0	3.6	11.2	8.7	3.7

^aSee *Imports by Commodity*, Statistics Canada Catalogue No. 65-007, monthly.

^bAlthough the data are shown as a continuous historical series, users are reminded that HS and previous classifications are not fully compatible. Therefore, changes in the levels for 1988 and after reflect not only changes in import trends, but also changes in the classification systems.

DESTINATIONS OF EXPORTS^a (% of total value)

	1983	1984	1985	1986	1987	1988 ^b	1989 ^b	1990 ^b
United States	39.0	70.0	66.0	64.0	79.0	69.5	65.6	66.7
European Community	5.0	11.0	4.0	7.0	5.6	16.5	18.9	18.6
Asia	11.0	1.0	16.0	4.0	4.7	3.1	4.0	4.1
Other	45.0	18.0	14.0	25.0	10.7	10.9	11.5	10.6

^aSee *Exports by Commodity*, Statistics Canada Catalogue No. 65-004, monthly.

^bAlthough the data are shown as a continuous historical series, users are reminded that HS and previous classifications are not fully compatible. Therefore, changes in the levels for 1988 and after reflect not only changes in export trends, but also changes in the classification systems.

REGIONAL DISTRIBUTION^a (1990)

	Atlantic	Quebec	Ontario	Prairies	British Columbia
Establishments (% of total)	10	24	50	10	6

^aISTC estimates.

MAJOR FIRMS

Name	Country of ownership	Location of major firms
Cambrian Engineering Limited	Canada	Mississauga, Ontario
Knud Simonsen Industries Limited	Canada	Rexdale, Ontario
L.P. Inc.	Canada	Victoriaville, Quebec

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