Canada: Laboratory Electrical Optical Equipment

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Summary

The Canadian market for Laboratory Electrical Optical Equipment is booming and despite the current economic downturn is expected to continue to expand. Technological advances have allowed greater utility and ease of use of old equipment through accessories, add-ons and computers, while advances in modularization, automation, and computerization have driven growth in new products. In 2007, Canada imported $318.8 million of electrical optical instrumentation, of which $101.3 million or 32% were goods from the US. Compared with 1997, this reflects a ten-year increase of $184 million in total imports, and $38 million in imports from the US.

In Canada, the high-end market is dominated by imported goods, with all well-respected import brands, such as Carl Zeiss, Leica, Olympus, and Nikon imported. Demand in Canada is fueled by a number of industry sectors which depend on quality electrical optical equipment, including manufacturing, medicine, and scientific disciplines. Low-end and consumer electrical optical equipment, such as microscopes, are produced in Canada, but that market is saturated and foundering.

The Canadian Standards Association sets the standards and regulations for processes such as welding and soldering which are involved in the production of Electric Optical Equipment, as well as other guidelines which may be of interest to US suppliers interested in penetrating the Canadian marketplace.

Market Demand

Canada has a thriving medical and life sciences sector, with 3,000 hospitals, 200 post-secondary institutions, and hundreds of public and private clinics and research facilities. Research universities, particularly in life sciences and hospitals compose the largest consumers of high-end electrical optical devices. Large research universities in Canada, including the University of British Columbia, University of Toronto, and University of Montreal have over one hundred fifty scientific laboratories each. Imaging solutions are used for a wide variety of applications, from sample comparison, examination, archiving, and so on.

According to a survey of end-users, most demand derives from modules or accessories of pre-existing systems. Complete systems typically last twenty to thirty years. New labs require a large investment in complete systems, therefore, there is a reasonable demand for replacements, accessories, modules, and computer attachments appear to be most in demand. Machines which aid in quick creation and imaging of slides are in high demand as they reduce repetitive and labor-intensive tasks for lab technicians. Image-capturing devices, computers, and other devices which are rapidly advancing technologically are replaced before they have worn out as new developments continue to offer significant advantages over obsolete but serviceable parts.

Mineral, earth sciences, and engineering fields such as metallurgy and geology extensively use high-end electrical optical equipment, representing roughly 10% of the market. Typically the core imaging apparatus is the same as those found in medical and life sciences imaging devices, but depending on the need of the end-user the rest of the application is either very similar or markedly different. In this field imaging devices are used to inspect, analyze, and test the microstructure of materials.

While high-end products are in high demand, the market for low-end and consumer scientific electronic imaging devices, is not believed to have much potential for growth in coming years. With the current economic downturn consumer products will likely see slower sales. The Canadian market is saturated with low-cost imports from China and features a large secondary market.

Market Data

In 2007, Canada imported US$318 million worth of electrical optical equipment, including optical microscopes, digital imaging solutions, lenses, and laser optical products. Electric optical devices manufactured in the US have consistently held the largest proportion of the Canadian import market share. In 2007, US exports totaled US$105 million, representing 32% of the market. Industry experts believe US products will continue to find good prospects in growth industries, especially since Canadian industries depend on quality imports. For microscopes, the strongest competition comes from China, which has increased exports to Canada fivefold since 2003, achieving a market share in 2007 of 27%. Chinese products are viewed of as low-cost, low-quality and most of their market share comes from low-end or consumer goods in this field. The influx of Chinese products caused US products to lose significant market share, from a peak of 60% in 2002, however, US products have recently made strong gains in market share, rising about 4% each year since 2005. For laboratory equipment and high-quality optical devices, US devices face competition from well-established and respected companies in Japan (10% of market share) and Germany (8%). The Canadian market for these devices has more than doubled over the last ten years.

The close proximity of the US to Canada allows for easy movement of goods and market integration. Ontario is the top provincial destination for US made electrical optical equipment and represents 61 percent of the United States total exports to Canada in this product segment. The next top two provincial destinations are Quebec (21%) and British Columbia (8%).

Import, export, and local production figures are based on estimates provided by industry sources and statistics published by Industry Canada and Statistics Canada. The following products, identified with the Harmonized System (HS Codes), are included in this analysis:

HS Code	Description
HS 900190	Prisms, mirrors and other unmounted optical elements NES
HS 900219	Objective lenses – Not for cameras, projectors or photographic equipment
HS 900220	Optical filters
HS 900290	Lenses, prisms, mirrors and other mounted optical elements NES
HS 901110	Stereoscopic microscopes
HS 901120	Compound optical microscopes – for microphotography, microcinematography or microprojection.
HS 901180	Other compound optical microscopes NES
HS 901190	Part and accessories for compound optical microscopes
HS 901320	Lasers (Other than laser diodes)
HS 901380	Optical devices, appliances, and instruments
HS 901390	Parts and accessories of optical appliances and instruments, NES
HS 903140	Optical instruments and appliances NES

Statistical Data

	2005 in Millions $	2006 in Millions $	2007 in Millions $	2008-2009 Estimated
Total Imports	335.6	357.7	318.3	366.0
Total Exports	210.0	228.5	172.0	225.8
US Imports	80.4	100.0	101.3	128.1
US Market Share	23.94%	27.96%	32.04%	35%
Exchange Rate	0.847	0.847	1.100	0.810
Inflation Rate	2.0%	2.0%	2.0%	2.0%

2007 Import Market Shares:

US	32.04%
China	28.92%
Japan	9.81%
Germany	8.28%

Best Prospects

In Canada, digital imaging apparatus are popular in laboratory and industrial applications. They represent an enormous improvement in speed and quality over traditional methods, which involved hand and model diagramming and film photography. The use of computers has also alleviated possible eyestrain or data loss. End-users and industry experts agree that there are a number of areas where a dynamic company could find good prospects.

An excellent prospect is offering customizable applications specifically tailored to the needs of the end-user. Many end-users have issues with software or hardware with features they either do not need or have to calibrate in order to use optimally. Optimizing hardware designed to appeal to the greatest number of end-users is time-consuming and can result in downtime. Dynamic customization can solve this problem by having the manufacturer work closely with the end-user to produce exactly which systems or modules are necessary for the application. End-users are nearly unanimous in agreeing that they would be willing to pay a higher price to cover the additional costs of customization and engineering and software support.

Applications with cross-industry appeal are also good prospects. Rather than many current projects, which attempt to appeal to all industries, products geared towards a number of related industries may prove to be a more cost-effective solution for end-users which still effectively addresses their needs. Manufacturers and distributors would also find this prospect less labor intensive and would not require as much of a support network.

With most modern imaging devices using a modular design, aftermarket or supplementary products are also a strong prospect. At the moment, most modules sold are by original manufacturers and many end-users complain about the difficulty in quickly buying parts from some manufacturers. Thus a company which can provide modules faster and cheaper than the original manufacturer would be able to capture this segment of the market in Canada.

Finally, while electrical optical devices are considered to have greatly improved efficiency in a laboratory setting, many feel that there is more improvement to be made in improving speed and reducing downtime. Machines which can image a larger number of samples quickly and flawlessly and more effective and faster interface software were cited by end-users as features they would like to see.

Key Suppliers

The electrical optical device market is highly diversified. The four most respected brands in Canada are Carl Zeiss, Leica, Olympus, and Nikon, all German or Japanese companies with worldwide presence. These companies all have reputations for providing the best possible products and support and have subsidiaries in either Canada or the United States. Minor brands include Motic, Hamamatsu, and Unitron, but they are not held in as high regard as the top four.

Prospective Buyers

Carl Zeiss and other small brands including the Canadian company VISIONx's VisionGauge are directly marketed and distributed by the manufacturer Depending on target industry. However, there are still a number of distributors for these products in the Canadian marketplace.

Soquelec: based in Montreal, Quebec, carries sixteen brands for a variety of scientific applications including digital imaging, optical and electron microscopes, products which can produce samples, and software.

Olympus Canada: based in Markham, Ontario. While Olympus may be a competitor, it also distributes imaging hardware and other applications which it feels have good prospects that it does not itself produce such as the Hamamatsu brand, so they may be a fit for some companies.

Buehler Canada: Buehler Canada, located in Whitby, Ontario, is a distributor if a wide range of laboratory products including lines from Nikon, Zeiss, and Unitron and their own proprietary brand Omniscope.

Geneq Inc.: Geneq Inc., located in Montreal, Quebec, is a distributor of a wide selection of scientific products in Biotechnology, Environmental, Geomatics, Materials Testing, and Meteorology. They distribute a large number of microscopes and appear to be looking for more electronic imaging device brands.
http://www.geneq.com

Market Entry

Canada is a relatively minor producer of electrical optical devices, with the majority of top-quality products imported from the US, Japan, and Germany. No specific list for electrical optical devices is easily accessible at the moment, but a list of distributors/manufacturers of microscopes can be found on the Powersourcing website and a list of optical supplies can be found on Frasers. The Microscopical Society of Canada also has a fairly comprehensive list of manufacturers/distributors that do business in Canada. For sales to government agencies, purchase of equipment is handled through a procurement bidding agency such as MERX.

Since this segment of the Canadian market is heavily import-dependent, an effective Canadian agent or distributor will be aware of the intricacies of these procedures and also a valuable source of market information in identifying potential opportunities, difficulties and other market trends.

Market Issues & Obstacles

There are four accredited standards development organizations (SDOs) in Canada:
1) Underwriters' Laboratories of Canada (ULC)
2) The Canadian General Standards Board (CGSB)
3) The Bureau de Normalisation du Québec (BNQ) (Bureau of Standards of Quebec)
4) Standards Council of Canada (SCC)

Each of these organizations develops standards through committees representing various interests. SDOs may submit standards to the Standards Council of Canada (SCC) to be recognized as National Standards of Canada. SDOs can also develop standards-related documents such as codes and guidelines (non-mandatory guidance and information documents).

Depending on the product, the Canadian Standards Association specifies requirements for processes involved in the construction of electrical optical devices, including welding, wiring, and safety standards.

Thanks to the North American Free Trade Agreement (NAFTA), American made products enter Canada almost entirely duty free. NAFTA came into force on January 1, 1994 and replaced the U.S.-Canada Free Trade Agreement that was implemented in 1989. The phase-out of tariffs between Canada and the United States was completed on January 1, 1998; except for tariff-rate quotas (TRQ) that Canada retains on certain supply managed agricultural products. Canada still maintains some non-tariff barriers of concern at both the federal and provincial levels, impeding access to the Canadian market for U.S. goods and services. However, recent studies show that 99 percent of all trade passes across the border without incident or without controversial trade restrictions. Many Canadian standards are harmonized with U.S. standards.

However, doing business in Canada is not exactly the same as in the United States, and U.S. companies should be aware of the differences. Customs documentation, bilingual labeling and packaging requirements and Canadian federal and provincial sales tax accounting may seem onerous at first compared to domestic shipments, but with a little experience most exporters find they can master the requirements. There are also many international trade professionals such as customs brokers, freight forwarders and consultants, who can, for a fee, handle much of the research and paperwork for smaller exporters without international sales departments.

The key to achieving market penetration for export sales to Canada is making the transaction resemble as much as possible a Canadian domestic transaction for the Canadian customer. One good way to do that is for

the U.S. exporter to become a non-resident importer and take the entire importing burden off the shoulders of the Canadian importer. A customs broker can be of assistance in this process.

The official languages in Canada are English and French. Outside of Quebec, English is the main business language. Quebec uses the Quebecois dialect of French and thus promotion and packaging should reflect local needs and language requirements.

Unlike the US, Canada uses the metric system for trade and it must be displayed on most goods. However, most Canadians are familiar with the imperial system.

Trade Events

It may be beneficial for sales promotion to participate in specialized trade shows in the field of electrical optical equipment. These events provide opportunities to display equipment and conduct networking and are thus an effective tool for marketing one's products and services to Canadian businesses.

The following present excellent opportunities for US companies:

Photonics North: Photonics North: International Conference on Application of Photonic Technology in Quebec City, Quebec, May 24 – 27, 2009.

Vision Canada 2009: Vision Canada 2009 in Calgary, Alberta, November 15-17, 2009.

Canadian Manufacturing Technology Show: Canadian Manufacturing Technology Show in Toronto, Ontario, October 19 – 22, 2009.

2009 World Molecular Imaging Congress: 2009 World Molecular Imaging Congress in Montreal, Quebec, September 23 – 26, 2009.

Resources & Contacts

Canadian Standards Association
Statistics Canada
Underwriters' Laboratories of Canada (ULC)
The Canadian General Standards Board (CGSB)
The Bureau de Normalisation du Québec (BNQ)
Standards Council of Canada (SCC)
MERX
Opticians Association of Canada
Microscopical Society of Canada
Powersourcing database of Manufacturers and Distributors
Fraser's Canada list of Manufacturers and Distributors for Microscopes

For More Information

The U.S. Commercial Service in Vancouver, Canada can be contacted via e-mail at: Cheryl.Schell@mail.doc.gov; Phone: 604-685-3382; Fax: 604-687-6095 or visit our website: http://www.buyusa.gov/home.

The U.S. Commercial Service — Your Global Business Partner

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