Report on the Packaging Machinery Mission to Interpack '73 Duesseldorf Federal Republic of Germany May 8 to 17, 1973

Industry, Trade and Commerce
Industrie et Commerce

Canada.

Report on the Packaging Machinery Mission to Interpack '73, Duesseldorf, Federal Republic of Germany May 8 to 17, 1973

Department of Industry, Trade and Commerce

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SUMMARY

Mission members have unanimously agreed that the time spent at Interpack '73 was highly beneficial. The new NOWEA fairgrounds in Duesseldorf -- site of Interpack '73 -- provided an excellent setting for the show which is, without doubt, the largest and most comprehensive packaging exhibition in the world.

Based on the individual reports from mission members, highlights of the German/European packaging industry follow.

- Interpack is a natural vehicle for promoting sales of Canadian equipment in Europe. However, it is strongly recommended that Canadian companies try to sell to Europe prior to exhibiting at Interpack because buyers frequently request to view operating equipment in local market conditions.
- The recent monetary realignments, inflation in Europe and scarcity of labour in the EEC, have now reached a level where European equipment prices are on a par with those of North America. Labour costs have recently increased tremendously within the EEC.
- Canadian companies appear to be more experienced and have higher speed and higher volume production machinery than the Europeans. Also Canadian equipment generally has higher line efficiencies.
- Canadian technology in selected areas is at least

comparable with -- if not better than -- European technology.

- Film packaging is more prevalent in Europe than in North America and the shrink concept is well established.
- Forest products packaging materials (e.g. corrugated) are more expensive and poorer in quality than North American materials.
- There appears to be a trend toward amalgamations and takeovers within the EEC. This is resulting in larger production runs and, consequently, a greater demand for high speed/volume equipment.
- It is strongly recommended that Canadian companies use "native" personnel in dealing within the EEC.
- Supply of spare parts from Canada presents no problem because of frequent intercontinental flights.
- An adequate servicing arrangement is mandatory if sales are to be made in Europe.
- European machines generally have a better finish than those of North America.
- Codes and standards pose little problem to a Canadian manufacturer trying to introduce equipment into Europe. He should, however, use European components, such as pneumatic and hydraulic cylinders and valves, wherever possible.

- European equipment manufacturers have excellent capability to supply complete systems including machinery, technology and packaging materials.
- Greater affluence in Europe is leading toward greater demand for portion packaging of many products, especially foodstuffs (i.e. snacks). This in turn is resulting in the establishment of supermarkets.
- Proposed marketing methods in order of preference are:
  a) Own European sales force and offices;
  b) Selling direct from Canada via frequent visits of company representatives to Europe (mainly for large orders);
  c) Selling through agents; and
  d) Selling through existing European equipment manufacturers' marketing organization.

In discussing the German/European packaging machinery manufacturing sector, Ron Langen, chairman of the Packaging Machinery Division of the Machinery and Equipment Manufacturers Association of Canada, said that Canadian equipment manufacturers do not take a backseat to European manufacturers either in terms of quality of equipment or innovation. He added that, "there is a tremendous opportunity for us in Europe, especially now that currency realignments

have made Canadian equipment more competitive pricewise". The market is there...Canadians can compete...what is needed is a concentrated marketing effort, NOW.

PART I

Introduction

One of the most export oriented sectors of Canada's machinery industry is packaging equipment manufacturing. In 1972, this sector exported about 90 per cent of its production, mainly to the United States. To a great extent, this export success is due to the nature of demand for packaging equipment in the U.S. Aggregate demand for packaging equipment in the U.S. is sufficiently high that it provides a sizeable market for high volume equipment and machines for specific application -- the area in which Canadian manufacturers have developed competitive supply capability. Although this high level of exports is a creditable achievement, the concentration of sales into one foreign market could become a long-run disadvantage. The industry, therefore, is interested in selling to other markets.

As packaging is mainly utilized in the more developed nations, a natural extension to Canada's export marketing is Western Europe where the demand for packaging equipment is expected to reach $500 million by 1975 (see Appendix A). A number of European countries (notably West Germany, Britain and Italy) have suppliers who are able to fulfill the major part of this demand. However, because of the wide variety of packaging equipment requirements, no one European nation can furnish all its needs. Consequently, all import some packaging equipment. This offers an exciting challenge to

Canadians, especially those with sophisticated or unique lines of products. The recent currency realignments have helped Canadian manufacturers become more competitive cost-wise and the enlarged EEC has expanded the market for the major European processors resulting in larger production runs, requiring high speed, automated packaging equipment. Canadians already supply this type of high capacity machinery to the U.S. market consequently they are familiar with the changing requirements of European processors. Additionally, labour shortages being experienced in Western Europe are creating a demand for more and more labour-saving equipment to be incorporated into production lines, therefore ensuring an expanding market for highly automated packaging equipment. The labour shortages have also caused wage increases that are effectively helping to make Canadian equipment more competitive.

To evaluate this promising market further, a mission to Europe consisting of eight executives from some of the major Canadian packaging equipment manufacturing companies was organized by the Department of Industry, Trade and Commerce. As West Germany is the largest producer of packaging equipment in the world and as Interpack is the world's largest packaging equipment show, the mission's visit was timed to coincide with this event. The Department also felt that Interpack would provide an excellent opportunity for mission members to view a wide range of competitive

European equipment in one location. As it turned out, mission members viewed firsthand the products of 560 companies exhibiting at the fair. Not unexpectedly, European companies were predominant, although the second largest exhibiting nation (after West Germany) was the United States. The next Interpack fair will be in May, 1975.

Objectives of Mission

The main objective of the Packaging Equipment Mission to Interpack '73 was to study firsthand the most recent advances in the German/European packaging industry. Members were to survey the market potential for packaging equipment in the Federal Republic of Germany, discuss ideas on new product developments and to investigate the possibilities of establishing licensing agreements. Each member has submitted a comprehensive report outlining his findings and suggesting possible marketing methods that could be adopted by other Canadian packaging equipment manufacturers in pursuing this market.

MISSION MEMBERSHIP

Members	Affiliation
D. A. Caulford General Manager	Phin Universal Division of Canadian Stackpole Ltd.
E. D'Souza President	Fibracan Inc.
H. Hagedorn President	Pyramid Machine Works Ltd.
M. R. Katz President	Ideal Equipment Co. Ltd.
R. Langen President	H. J. Langen & Sons Ltd.
K. Lee President	Wrap-O-Matic Machinery Co. Ltd.
J. M. Sinclair President	Edson Packaging Machinery Ltd.
H. S. Stevenson Vice-President and General Manager	Delamere & Williams Co. Ltd.
B. H. Oakley	Machinery Branch Department of Industry, Trade and Commerce
H. G. Schroeter	Fairs and Missions Branch Department of Industry, Trade and Commerce

PART II

Mission Reports

The following reports were prepared and submitted by the mission members. Each member worked independently on a sector of particular interest to him and his company. This gave rise to some duplication; however the approach ensured that each sector was studied in depth and that many different viewpoints were presented.

Sector Titles

1. Bottling and Canning Equipment
2. Case and Cartoning Equipment
3. Forming Equipment
4. Heat Sealing Equipment
5. Pouch Machinery

SECTOR 1 -- BOTTLING AND CANNING EQUIPMENT

By D. A. CAULFORD

PHIN UNIVERSAL

DIVISION OF CANADIAN STACKPOLE LTD.

German/European Bottling and Canning Industry

At a packaging show as wide and as comprehensive as Interpack '73, it was difficult to pick out any definite trends in machinery for the bottling and canning segment of the European packaging industry. There was an obvious abundance of shrink wrapping machines for unit packs and pallets. There was also an increase in the plastic bottle in-mould decorating equipment. The French, British and Germans all displayed methods of in-mould decoration of plastic containers.

We get a better feel for the trends through our own attempts to market our labelling machinery in the Common Market area. For years, we have met with little success except in Britain and Spain where the liquor and wine industries have a definite need for our type of equipment.

In recent months, since the enlargement of the EEC, we have definitely noticed increased activity and interest in our machinery on the Continent. It appears that the enlarged Common Market is enabling bottlers and canners to increase their output and they are looking for higher speed automated production lines.

Our observations would indicate that the Common Market represents a tremendous potential for Canadian packaging machinery manufacturers. It will be necessary for each supplier to seek out the countries that are specialists in producing the products that require specific packaging equipment. These specialist countries are now looking at a greatly expanded market for their products and will be looking for more automated packaging machinery.

The European countries are all suffering from increased labour costs and this, coupled with the realignment of currencies, gives Canadian manufacturers an excellent opportunity for promoting the sale of their equipment.

German/European Bottling Equipment

The bottling and canning equipment displayed at Interpack did not indicate any basic change in trends of machine design for higher speeds, etc. With the exception of high speed beer and soft drink labelling machines, there did not appear to be any machines of better quality or capacity than those available in North America.

There does appear to be a trend toward bulk palletizing of glass bottles and an increased use of wrap-around casing equipment. There was no evidence of any overall standard of safety protection, etc. In some cases, the machine guarding was primitive. In others, it was extremely sophisticated with limit switches and interlocks to shut the equipment down as soon as a guard was removed.

The cost of European equipment generally, and German machinery in particular, has increased over the past few years. At the present time, Canadian machinery should enjoy a much better competitive position in the Common Market due to the increased cost of European equipment. These cost increases are due to two basic factors: (a) the realignment of currencies resulting in a much cheaper Canadian dollar; and (b) the rapidly increasing cost of labour in practically all of the Common Market countries. Germany in particular is becoming a very expensive labour market and is suffering from an acute shortage of skilled labour.

As to technology, it was our impression that the Europeans (Germans in particular) are more advanced with respect to beer bottling than we are in North America. This is not so, however, with their liquor and wine bottling equipment. For this reason, I feel there is a good potential in these industries for North American machinery.

Marketing of Canadian Equipment in Europe

The method of marketing Canadian equipment in Europe would depend to a large extent on the complexity of the machinery and, of course, the competitive position. Basically, our approach has been to have our own office located in Britain selling through sub-agents in the various countries on the Continent. The methods of doing business vary from country to country and it is usually an advantage to have a knowledgeable native of the country promoting the sale of one's equipment.

To market successfully throughout Europe, one has to maintain an extremely flexible attitude to the methods of doing business and be prepared to practise that old axiom: "When in Rome do as the Romans do".

It is very difficult to sell packaging machinery direct from Canada unless one has a highly specialized piece of equipment that is not available from a European supplier. The language barrier, combined with the long lines of communication, usually make it impractical to try to sell direct.

Geographically, we have a distinct advantage of servicing customers in Europe that many companies tend to overlook. The European customer considers Canada a faraway place and, as such, is concerned about the availability of parts and service. What they don't appreciate, however, is that we are an overnight flight away so that parts and service can be made available on short notice. For example, a report of a machine breakdown requiring parts and/or service could originate at 4 p.m. European time. This is 11 a.m. our time giving the Canadian supplier an opportunity to send a serviceman with the necessary parts on a flight to Europe that evening, and be in the customer's plant the following morning. We have taken advantage of this many times and our customers in Britain have been pleasantly surprised.

Interpack '73

The Interpack show is, of course, an excellent vehicle for promoting packaging machinery in Western Europe. The Iron Curtain is still an effective barrier to travelling

of technicians from Eastern Europe. It was unfortunate that we were not able to display Canadian machinery at this past Interpack and our recommendations would be that everything possible should be done to acquire space to provide a good display at the next one. Interpack is by far the largest and most comprehensive packaging exhibition in the world and, as such, not only gives maximum exposure of one's equipment but gives maximum opportunity to observe other countries' machinery that could be saleable in North America through manufacturing licensing agreements.

SECTOR 2 -- CASE AND CARTONING EQUIPMENT

By H. HAGEDORN

PYRAMID MACHINE WORKS LTD.

German/European Packaging Industry

The expanded EEC is starting to have noticeable effects on the German/European packaging industry. The increasing demands for all products are resulting in larger production runs by processors which is especially assisting the larger companies to reduce their production costs. This, however, is effectively reducing the amount of competition as smaller companies cannot compete with the larger processors. Subsequently, they are purchased by the larger companies or are forced to amalgamate with others. This is a repetition of the North American experience.

In conjunction with larger production runs, it was observed that European producers are packing a greater number of cans or bottles in each case or carton. This is obviously a more economical usage of corrugated medium.

The quality of European corrugated and hardboard is generally lower than North American materials, although, because of the pricing policies of the multinationally owned suppliers of this material, it was noted that North American and European material prices are approximately equal. It is suggested that Canadian manufacturers of equipment that utilize this lower quality material should run samples on their machinery prior to installation of the equipment.

One other noticeable trend in Europe is the greater utilization of shrink wrap due to the lower costs of film in Europe vis-a-vis paper products.

German/European Packaging Equipment

There are only a few European manufacturers of wrap-a-round case packers. These include companies in West Germany, Italy and Sweden.

Although European equipment prices were lower than those in North America, the recent monetary realignments have resulted in competitively priced Canadian equipment.

Apart from the obvious advantages of using metric, standards are generally not too much of a problem in adapting Canadian machinery to European needs (Britain and U.S. companies are already selling extensively in Europe). Component parts, such as pneumatic cylinders and control valves, are manufactured in Europe by companies that are also manufacturing in North America. This helps to ensure ready availability of these units. Naturally, European electrical equipment (e.g. motors) should be specified wherever possible due to the differences in voltages that are used.

Technologically, the Europeans have comparable expertise to North American machinery manufacturers. However, in the past, smaller production runs were prevalent and European manufacturers had to design equipment that was easily changeable for different product runs. Now larger

production runs are being introduced and Canadian equipment is a natural because Canadian manufacturers have had practical operating experience on large-scale operations.

European machines have a better overall finish than North American units. For example, European machines frequently have baked enamel finishes; more elaborate guarding and are generally more "closed" in than North American machines which are quite open and accessible.

Labour costs, a major component of machine prices, were studied and it was discovered that, generally, there are no real labour problems in West Germany. The German machinists' union (Metal Industry Union) is national in scale, therefore no local labour difficulties arise and machinery manufacturers can plan ahead with confidence. West German companies can also automate plant equipment without the concern that unions will buck such installations because of fear of layoffs, etc. This is obviously beneficial both for the processor (the machinery buyer) and the machinery manufacturer interested in installing machine tools.

Another interesting observation concerning labour is that piecework is used extensively by machinery builders. This is possible because European companies have long experience in manufacturing equipment and they have developed extensive records to assist them in producing accurate time records. Piecework ensures fastest possible production time but inspections have to be quite stringent.

European equipment manufacturers appear to be quite R & D oriented. Using U.S. price schedules and savings achieved by lower labour costs (until recently), they have been able to expend a greater part of their sales dollar on R & D than competing North American manufacturers. However, this may change in the future.

Marketing Requirements and Opportunities

The best selling method in Europe appears to be direct selling from Canada. However, a company marketing representative should be stationed in Europe almost permanently. Having one's own man in Europe ensures loyalty to the company and avoids the difficulty of diversified interests so often noticeable in agents. Most agencies have been observed to have too wide a range of products and, therefore, have no vested interest in the machinery builder.

An alternative to direct selling (especially if the Canadian company's prices are not competitive) would be to set up a European subsidiary to manufacture under Canadian head office direction. This could be reasonably and easily accomplished by buying out a small European machine shop and probably operating it initially on an assembly basis. As the major market for packaging equipment seems to be in Southern Germany, this would be the logical location to establish a manufacturing operation.

To provide servicing, a full-time European represent-

ative would be needed once sales have been made. This person could be phased in gradually, possibly by using him as a back-up salesman while sales are building up. Delivery of spare parts is not a problem as flights from Canada can ensure promptness.

Personally, I do not recommend licensing (either in or out) as a method of entering the European market. I have observed that a company licensing its product designs is frequently only interested in licensing outdated designs. Alternatively, to license designs to another company would encourage eventual piracy of these designs by the licensor company.

Interpack '73

Interpack is undoubtedly the largest packaging show in the world and participation in it appears mandatory for any company endeavouring to crack the European market. The fair grounds are extremely well laid out and the range of exhibits provides plenty of incentive for potential purchasers to attend. It is, therefore, strongly recommended that the next Interpack show (1975) be utilized as a vehicle for promoting Canadian equipment sales in Europe.

SECTOR 2 -- CASE AND CARTONING EQUIPMENT

By R. LANGEN

H. J. LANGEN & SONS LTD.

German/European Packaging Industry

(a) Trends

A great many opportunities are opening up for packaging machinery suppliers in the expanded EEC. In many industries, it is apparent that more operations are being centralized as the community becomes more closely knit. This centralization trend is being spurred by the elimination of tariffs among European countries and because transportation costs for finished products are not excessive; there are relatively short distances between markets in Europe vis-a-vis those in North America. Centralization should lead to the building of new plants wherein emphasis will be placed upon acquiring complete packaging systems.

The demand for a systems approach by European companies is following the North American trend. From this approach, the packager benefits from a machinery synchronization aspect and through obtaining single source responsibility.

Another trend, observed in Germany, was that more emphasis was being placed upon larger individual portion packages. This trend was noted during a trip through supermarkets.

Other forms of packaging popular in Europe include a tray with shrink wrap; a wrap-a-round case packaging system utilizing corrugated material that produced a full overwrap case; and a case packaging system that has a complete corrugated sleeve with a shrink film end. The economics of the latter system are somewhat questionable, however, it does provide a tight pack and has the advantages of a full wrap-a-round corrugated case.

(b) Materials

Although European pulp and paper mills are working at capacity, there is still a shortage of forest products materials in Europe.

Because of the demands of environmentalists, new packaging materials are being introduced that will not harm the ecology.

(c) Impact of the Enlarged EEC on the Industry

The impact of the enlarged EEC on the European packaging industry will be significant. The expanded and centralized manufacturing operations being built will provide economies of scale that will undoubtedly increase the utilization of cartoning and case packing.

Multi-lingualism within the EEC handicaps large integration of the various economies and this could have a retarding effect.

(d) Major Markets

The major European markets for packaging machinery, in order of importance, are France, Britain, the Benelux

countries, Germany and Italy.

France has a relatively poor packaging equipment manufacturing industry, thus offers the greatest potential for sales. It also has historic ties with Canada which could be beneficial to Canadian manufacturers.

Britain remains an important market. There is no language barrier; dialogue can be readily established and marketing methods and demands are similar to those of North America. Britain can also serve as a stepping stone to the European market at large.

The Benelux countries also provide for a substantial market. Although there is some manufacturing of packaging equipment in the Netherlands, Dutch companies do not produce relatively high speed, high efficiency lines.

Germany presents a large market but, because of fierce domestic competition, it may be difficult to penetrate. Promotional efforts may be better rewarded elsewhere.

Italy also has a substantial industry of its own and it would be difficult to penetrate this market with the type of machinery made in Canada.

(e) Overall Impressions

From a viewpoint of obtaining business, the European market is encouraging, and with the establishment of a good dialogue with various machinery manufacturers, some immediate results might be expected. However, of immediate consideration should be a program of better domestic co-operation.

German/European Packaging Equipment

(a) Trends

Because of centralization, there is a definite trend in Europe toward marketing complete systems. It was noted that large organizations, such as Robert Bosch, Fig, Rovema and others, displayed complete systems at the Interpack show. They featured, for example, form/fill/seal and cartoning equipment as well as case packaging units.

Machinery offering high capacity in terms of speed, and economy of labour and material, will receive increased consideration from European buyers. Because of the sophistication of this equipment, the systems approach supplier will have a substantial edge over competitors.

(b) Codes and Standards

Compliance with strict Canadian and U.S. codes and standards (electrical, mechanical, safety and sanitary) helps to give our equipment a substantial advantage over European equipment exhibited at Interpack.

(c) Cost of Equipment

The cost of European equipment compares favorably with Canadian-made equipment. The recent currency realignments and German inflation have helped to reduce the price gap that once existed. Canadians can compete well in terms of production performance versus costs, but in regards to machinery quality versus cost, Canadian products are generally somewhat more expensive.

(d) Level of Technology

Technology used in packaging machinery made in Europe is ahead of that of North America in areas that require a great deal of novelty packaging. However, in terms of machine performance, production speed and reliability, Canadian-produced equipment has a considerable lead. Canadian manufacturers also appear to possess superior technological knowhow in such areas as cartoning, case packing, accumulating, pouching, shrink packaging, pallet shrinking and portion packaging.

A detailed examination of European machinery revealed that the quality of workmanship was, in most cases, good. It was also noted that Canadian machinery manufacturers on the average incorporated more ingenuity into their equipment than their European counterparts.

European equipment is frequently unsuitable for North American multi-shift processing plants because it is generally built for single shift, low to medium-speed production and is designed for frequent changeover of products. These characteristics are not required for the high speed, high volume North American lines. European machines also do not appear to have the reliability and efficiencies demanded in the North American market. This was especially noticeable in the cartoning equipment viewed at Interpack. European machines were definitely lighter and less ruggedly built than Canadian-manufactured equipment.

On the other hand, the Europeans displayed a superior level of knowhow in pharmaceutical machinery. Even if a Canadian manufacturer did develop a machine for this industry it would be difficult to introduce it to the European market without the assistance of an established European manufacturer (preferably German). In this case, licensing would perhaps be the best approach.

European wrap-a-round corrugated case machinery manufacturers all use a concept similar to that introduced by the former Griswold Engineering Ltd. of Montreal. Accumulating systems, etc., displayed by the Europeans, were all similar. All machines shown were of the intermittent motion type and were geared to low and medium-speed production. These machines are well suited for casing larger products such as quart bottles or cans.

(e) Overall Impressions

The German packaging machinery industry today is mature and well-developed. This was particularly evident at Interpack where it was observed that most sectors of the packaging machinery industry have been well developed and exploited.

The Europeans have made considerable progress in forming consortia and arranging mergers (the Robert Bosch group is a good example of this trend). This type of co-operation will be important in future world competition. Already it has assisted in the marketing of complete packaging systems.

Organizations such as Europe Emballage and Europa Carton can readily supply a complete system service including the machinery, the expertise on packaging materials and the supplies to cover such contracts. (It should be noted that material suppliers in North America have been employing this technique for many years.) However, during discussions with various packagers, an increasing resistance to this approach surfaced. Packagers are becoming more reluctant to sign up for long-term systems contracts (including materials supplies) because the systems approach works naturally to the advantage of the supplier.

There is a great deal of duplication among European manufacturers. For example, at Interpack, at least 12 producers of wrap-a-round case packers exhibited identical or near identical machinery. It is somewhat surprising that the German economy can sustain this massive duplication which has taken place within the industry.

In summary, I would have to state emphatically that Canadian equipment manufacturers can take substantial advantage of the European market and exploit our knowhow in selected areas. Canadian manufacturers have nothing of which to be ashamed in comparison with our European colleagues.

Marketing Requirements and Opportunities

(a) Preferred Marketing Methods

Marketing requirements in Europe vary greatly. Europe must be considered as a market in which many countries

work together each with its own culture, customs and language. This presents various problems and it is difficult to envision one agent for the whole of Europe. The most logical marketing approach would be to have agents or distributors established in each of the countries. Preferably, these agents would be natives who speak English. The distance between Europe and Canada does not make it conducive to deal directly with end users, thus this approach is unlikely to produce any concrete results.

Another approach to marketing in Europe is co-ordinated Canadian action. To date, the achievements of Canadian manufacturers in selected product areas have been most encouraging. Individual items of equipment can be considered equal to, or better than, equipment viewed at Interpack. However, the trend toward complete systems approach has become well established and individual Canadian manufacturers cannot compete in this area with such European giants as Bosch, Fig and Europe Embellage. Accordingly, a much greater degree of co-operation within our industry is needed if we are to compete successfully with these large European organizations. I would like to add that enquiries received by my company from many areas of the world also point to the necessity for a co-ordinated Canadian systems approach to marketing.

Without co-operation, all we can expect to achieve is the supply of component machines for these systems which would mean that the Canadian manufacturer would have to

establish a working dialogue with the European companies. It should be noted that these large European giants are actively marketing their systems in Eastern Europe, including the Soviet Union, and this could conceivably open up these markets to us.

(b) Other Approaches to Marketing

Another approach to marketing and perhaps the most effective, would be to appoint a marketing director who would have salesmen, some of them multi-lingual, strategically located in various parts of Europe. This approach, although offering the best chance of success, is also the most difficult to get started. The Nordson Corp. of Amherst, Ohio, is a good example of a firm which has utilized this approach successfully. However, it is unlikely that any company in our industry could afford to market in this manner in Europe.

(c) Direct Sales Opportunities

There are areas in Europe where direct sales efforts might be successful especially for equipment worth $70,000 or more. Direct sales, however, can only be justified if prospects can be investigated and if a high degree of quotation versus sales enquiries can be realized. On equipment below $50,000 the cost of sales efforts becomes prohibitive.

Since there was hardly any medium or large-sized cartoners at Interpack, this is possibly an area in which Canadians could be successful. Discussions with European converters have reinforced this opinion.

Another potential area for Canadians may be the supplying of the larger-sized pouch packaging machinery. Germany is using more and more of the larger pouches and if Canadians act now they could obtain business. It may be presumed that Canadian technological leads will not last long (German companies may soon develop competitive units) so there is some urgency to exploit the demand immediately.

(d) Opportunities for Licensing

There are situations in which licensing could be successfully exploited. There are, however, a number of hazards that should be evaluated prior to making any arrangement. Since packaging machinery requires a high degree of innovation it would be difficult to maintain a long-term licensing arrangement. It would be better to make an agreement with a machinery manufacturer to supply him with component parts or a machine within a system. These types of arrangements have the best chance of success over the long term.

It should also be kept in mind that German machinery manufacturers are now finding new developments expensive, mainly because of inflation and the realignment of currencies. My earlier remarks on pharmaceutical equipment are also applicable here.

(e) Servicing Requirements

In dealing with sophisticated machinery, a service department is a necessity and it is recommended that a central one be established to meet the various agents or distributors

immediate requirements for spare parts. Our system of measurement still presents a hindrance to procuring sales, thus it is paramount that good access to spare parts is provided.

(f) Other Comments

Europe offers opportunities that could be profitable for all Canadian manufacturers. However, a much greater degree of co-ordination is necessary. We should, therefore, establish within the Packaging Machinery Association, a means of dialogue where such co-ordination can be achieved as it is unlikely substantial results will be obtained if we maintain the fragmented efforts that now exist.

Interpack '73

The Interpack show is one of the largest events of its kind in the world. The facilities are tremendous and the event itself is extremely well organized. It provides maximum benefits to the packager (user of machinery and materials), manufacturer of packaging materials, and machinery manufacturer.

In touring Interpack, one had to select carefully the segment of special interest to oneself otherwise the full benefit of the show would not be obtained. There was a vast amount of machinery on display which covered the entire industry and ranged from equipment used to process converted raw material through to the packaged product.

For future promotional efforts in Europe, Interpack would be the most suitable show. It attracts visitors from all of Europe and representatives from many North American

owned multinational corporations. As such, all promotional dollars allocated to this effort will produce a substantial reward. Here, again, co-ordination among various Canadian packaging machinery manufacturers is of great importance.

SECTOR 2 -- CASE AND CARTONING EQUIPMENT

By J. M. SINCLAIR

EDSON PACKAGING MACHINERY LTD.

German/European Packaging Industry

In Europe, the use of corrugated board has grown recently at a relatively slow rate but there has been a rapid growth in the use of plastics as an alternative material. This trend is particularly noticeable in the tissue, canning and bottling industries. Chipboard trays, with shrink overwrap for cans and bottles, are also being widely used.

Many applications, where the product itself is self-supporting, have gone to shrink wrap. The cost differential between plastics and corrugated in Europe was much more advantageous in favour of shrink film than in North America. Broad acceptance of plastic packaging by major chains and favourable treatment by freight associations has created a good climate for the rapid increase in plastics packaging.

It was apparent, however, that a wide variety of products, which are packed into corrugated cases in North America, are also packed into corrugated in Europe. The added protection and stacking strength of corrugated have limited the use of film for many products that are susceptible to damage in storage or in transit.

Wrap-a-round case packing is being used more widely in Europe than in North America particularly for products that are self-supporting and where changeover of size of case is rare.

The use of recycled board has increased rapidly and it was reported that the poor quality of some of this material created many difficulties for automatic case packing equipment.

There appears to be greater use of taping machines as compared with glue sealing machines for case closing. Several manufacturers of case tapers and case gluers indicated that, in Europe, the cost of taping was lower than gluing. The reverse is generally true in North America.

A number of European manufacturers indicated a much greater interest in expanding sales to the new EEC members and to East European countries than to North America. The recent currency revaluations have caused much concern regarding the competitive position of European machines in North America. Combined with this is the problem of metric versus the inch standards which has made many European manufacturers feel that their efforts would be more successful in areas other than Canada and the United States.

German/European Packaging Equipment

The European packaging machinery industry is dominated by Germany, and the German packaging industry is in turn dominated by several large companies which are several times larger than any U.S. packaging machinery company. German equipment is sophisticated, well-built and well-finished. Deliveries are generally extended and safety requirements are high. Most equipment appears to have

extensive guarding.

There is a trend toward high speed equipment and fully automatic systems. Checks of case packing equipment prices indicated European and North American price levels were similar on several types of machines.

One manufacturer said his company's pay rate for a mechanic was 5.5 DM ($2) per hour, but that the effective rate, with all fringe and social benefits included, was approximately 11 DM ($4) per hour.

European manufacturers appear to have a high level of technology in most areas where market demand has justified expenditures on development of special-purpose equipment. There appear to be certain specialized areas, however, where Canadian equipment that has been developed for the U.S. market could be sold in Europe with limited competition from manufacturers there.

It is understood that the return on sales and investment of the large German packaging machinery manufacturers is very low. There is a growing trend in Europe to submitting turnkey proposals on packaging systems, particularly to the East European countries.

In areas where the packaging methods are comparable, the level of technology between European and North American manufacturers appears to be equal. In high speed case packing of cartons, North American industry is perhaps somewhat advanced. In case packing of some irregular shaped containers, the Europeans appear to have more experience and a higher

level of technology. European industry spends a large amount on research and development and is highly competent in areas of specialization.

Marketing Requirements and Opportunities

Germany is a major exporter of packaging machinery to all EEC countries but buys little, other than specialized equipment, from them.

The European market for case packers, for the more standard applications, is now well served by European manufacturers. The potential for sales of this type of equipment appears to be limited, particularly in Germany and Italy. There appears, however, to be potential for case packing equipment that has been developed for non-standard applications or for specialty end uses. Although these are fringe markets, they could represent significant volume for a Canadian manufacturer. We are optimistic that the potential in Europe for our own specialized equipment can be developed fairly quickly.

Some multi-national companies in Europe seem to be quite receptive to Canadian equipment, if similar equipment is in operation and performing well in their Canadian and U.S. plants.

For a Canadian packaging machinery manufacturer to market products effectively in Europe, it is essential to have a reliable agent or agents, and to provide adequate facilities for servicing the equipment. Multi-lingual literature, with better than the average translation of technical terms, is also highly desirable.

As a result of currency revaluations, there appears to be an increasing interest by European companies in discussing agreements for manufacturing under licence for the North American market.

SECTOR 3 -- FORMING EQUIPMENT

By E. D'SOUZA

FIBRACAN INC.

German/European Disposable Cup and Container Industry

The disposable cup and container industry in Germany is fairly advanced and, in Europe, is probably second only to Britain as far as total usage is concerned. The per capita consumption, however, is considerably below North American levels although it is rapidly increasing -- hence the higher annual growth rates than in North America.

The vacuum-formed and thermo-formed cups and containers have the bulk of the market. Paper comes a distant second with probably less than 40 per cent of the total market. There are no foam cups and containers made in Germany and practically none are used. One plant exists in the Netherlands.

The disposable cup and container industry is mainly divided into two fields: institutional and retail. Compared with North America, the level of consumption in Europe is quite low. The bulk of the usage is in the manual operation and little in the vending field.

Rising wages in Europe will tend to increase the market but growth will depend on the pricing of the disposable cups and containers. In the retail field, the market is mainly covered by department and stationery stores which is in contrast to North America where supermarkets and grocery stores have played a major role in expanding this business.

The retail field in North America is dominated by foam cups sold at low prices to encourage use by housewives.

In Europe, foam cups are practically non-existent with paper cups tending to dominate the field. Possibly, because of the high price levels of paper cups, this market has been restrained. Hence, the introduction of foam cup molding machines should produce low prices which should expand the field of disposables in general.

The fast-food franchise systems that have contributed substantially to the growth of disposables in North America are just starting to make headway in Britain and the rest of Europe. In a few years, the growing number of fast-food franchise systems should contribute substantially to the growth of disposable cups and containers in Europe.

Molding machines for manufacturing foam cups and containers were not exhibited at Interpack and, because of lack of raw material (expandable polystyrene cuphead) for foam cup making, there is hardly any incentive for the development of foam cup molding machinery. The foam cup and container technology is considerably ahead in North America and opportunities do exist for exporting to Europe.

At present, expandable polystyrene bead (cup grade) is not available in most of Europe and there is only one company in Britain manufacturing this material. Unfortunately, the quality of this company's product does not yet match North American standards. Hence, the availability of good cup grade bead is essential to the growth of foam cups and

containers in Europe. In North America, this type of cup and container has a major share of the market and has contributed substantially to the growth of disposables.

Germany leads the world in the export of paper cup and container-forming machinery. In spite of this Europe still offers good potential for the supply of this type of equipment since technology in Canada is at least on a par with that of Europe, if not slightly ahead.

In the future, the field of disposables should have a higher growth rate in Europe than in North America, offering Canadian companies opportunities to sell production, printing and packaging machinery.

General Comments

Interpack is undoubtedly one of the world's largest machinery shows. It is impressive, presents a wide range of packaging equipment and, as might be expected, is predominated by German companies. Only a few Canadian companies exhibited at the '73 show. Obviously, this participation should be improved if Canadians are going to exploit their technology aggressively in Europe. It was noted that Canadian technology compares favourably with that of other countries.

SECTOR 4 -- HEAT SEALING EQUIPMENT

By M. R. KATZ

IDEAL EQUIPMENT COMPANY LIMITED

German/European Packaging Industry

The trend today in the German/European packaging industry is toward larger and high speed automatic packaging equipment such as high speed sleevewrappers, bundlers and overwrap machines. As the market moves toward accommodating supermarket retailing, there will be more portion packaging, utilizing more and more film. Chipboard trays will replace cartons and other materials for shipping goods.

As there are more than 2,000 supermarkets, and as German self-service stores account for over 80 per cent of total food store sales, there will be more use of multi-pack trays for cans (soft drinks, soups, canned fruits, etc.) which will be placed directly on the store shelves. This is already much in evidence in some supermarkets.

Although Germany is now the leader in supermarkets in Europe, the supermarket concept is being accepted quickly in France and the Netherlands and will soon spread to Belgium, Switzerland, etc. This trend is of great importance to the European packaging machinery market as it will create a need for high speed sleevewrap, bundlers, shrink tunnels, and pallet shrink machinery.

As the inflationary trend in Europe continues, there will be opportunities for packaging machinery that

offers substantial savings in labour costs and for continuous operation systems. Recent statistics show that for some German companies, labour costs doubled from 1962 to 1970. With the present strong unions and inflationary trends, this problem will take on astronomical proportions.

Another factor that will affect the packaging industry, and thus packaging machinery in Germany, is the shortage of clerical staff. Plastic film, as a food wrapping material, is becoming more popular since the handling of many unwrapped food items is restricted to medically inspected store clerks. There is a severe shortage of clerks at present.

The growing markets in Germany for the coming years will be foodstuffs, particularly canned goods such as beverages, fruits and vegetables which will be processed using continuous operation systems.

Another trend in Germany is a growing penchant for snack foods. German machinery builders have not concentrated on this area in the past, but, as Germany's 215 million population becomes more and more affluent, there should be a large market for snack foods and packaging equipment. Canadian manufacturers of packaging machinery who cater to potato chips, pretzels and snack food industries should exploit this good market potential as European packaging machinery manufacturers have not developed machinery to any extent in this area.

German/European Packaging Equipment

Basically, European manufacturers build better

quality equipment than North Americans, especially the average type of machinery.

European strength in heat sealing equipment tends to be in the highly sophisticated, complex, automated sleeve-wrappers, pallet shrink ovens, pouch fillers and sealers.

In regular L-Bar sealers and shrink tunnels, there are few startling innovations. Most manufacturers in this area produce the ordinary hot-wire, pneumatically operated L-Bar sealer (some with side seals) and the basic air duct system or infrared shrink tunnel, all of which are now manufactured in Canada.

The infrared shrink tunnel seemed to be more popular as it is easier and cheaper to manufacture than shrink tunnels which use an air duct system. In the latter system, the air in the shrink tunnel is agitated to become turbulent, and in this writer's opinion, gives a better shrink result than the infrared method in which the air remains still.

European machinery manufacturers offer large high speed machinery, such as overwraps, which can process up to 60 packages per minute, and also massive pallet shrink equipment, which has the appearance of a small cabana. The pallet enters the "little house", the doors are closed, then after a short time, the back door is opened and the shrinkwrapped pallet emerges on a conveyor track. This shrink palletizing appears to be quite strong. I've seen bricks palletized in Italy and then shipped across the continent.

One factor that should be noted by Canadians is the high cost of machinery in Europe, particularly in Germany. Although Germans produce quality packaging equipment, their prices compare favourably with Canadian equipment. As recently as two years ago, Germany offered a much better dollar value for packaging machinery than did North Americans. But today, Canadian products can compete on an equal price basis.

One cause of the high price of German machinery is the cost of labour and the grip the union has on manufacturers. One German manufacturer explained that it seems as if the whole country is tied down to one, nationwide union. If a manufacturer hires an individual and keeps him for more than three weeks, he cannot lay him off even if business drops off. In addition, the work week has shrunk to about 37 hours from about 45 hours. Workers receive 15 months pay for 12 months work.

This German manufacturer built a fine piece of packaging equipment, but his price to our firm (as North American distributors of his product) was higher than the competitive U.S. firm's price to the final customer.

Marketing in Europe

Any small or medium-size Canadian company that is inclined to market its machinery products in Europe must take great care in both the methods and policies it employs.

The most popular form of marketing machinery

products in a foreign country has been the utilization of agents or distributors. The main reasons for this are that most Canadians do not know the different European customs, cultures, languages and modes of transportation. This unfamiliarity often creates problems.

For instance, our Vice-President, a native Austrian who has lived in Canada for many years, went to Germany recently to survey the European market for textile machinery. In spite of being perfectly fluent in German, he had many problems in travelling as road signs were confusing. He also found the European telephone system to be an impossible means of communication because of the time and expense it took to place a call in comparison with North American telephone systems. A native German, on the other hand, is familiar with the business practices of his country and can be effective in starting to market in Europe.

"Agent's and distributor's markups have been reported to range from 3 per cent to 15 per cent of the selling price, with the level related to the price of the equipment and to the services provided." This quotation is from a report published by the U.S. Department of Commerce. However, in our personal experience, we find the rate is closer to 25 per cent.

Service is the one important point to keep in mind when using agents or distributors in Europe. This factor can make or break a company. If a Canadian machinery manufacturer ties up with a distributor who cannot, or does not, provide adequate service, the initial success based on the machine's

capabilities will be wiped away. Furthermore, your company's reputation may be ruined for a long time in the European market if inadequate service is provided.

The best areas for service centres are in Cologne, Duesseldorf or any city near the Ruhr Valley, one of the most industrialized areas of Germany.

If a Canadian manufacturer wishes to deal direct he could locate native Europeans to represent the company in various countries and have them start sales and service offices. Ideal Equipment hopes to market this way in about two years. The key factor here, however, is the enormous cost of startup and the training of the Europeans in your company's equipment. Usually, this entails bringing them to Canada for up to a year to learn the company's products, marketing methods and service requirements. Startup costs include the setting up of service offices and all expense incurred with a sales office.

On the other hand, a Canadian company using this approach could be a "master of its own destiny". If implemented correctly, this method could open up an entire new production and marketing operation in Europe.

Another marketing method that may be successful is direct selling, but only in large quantities. In other words, a Canadian manufacturer would send one of his top men to Europe to negotiate for a sale of at least five or six pieces of equipment depending, of course, on selling price and so forth. To attempt to sell one setup, as we do in Canada, would be ridiculous because of the selling and installation costs involved.

The area in which Canadian manufacturers could specialize is high volume sleevewrappers, box closers, and tray formers in the shrink packaging line. European manufacturers of L-Bar sealers, pallet shrinks and shrink tunnels are extremely competitive. The U.S. enjoys 8 per cent of the packaging machinery export market in Germany with sales of approximately $1.5 million annually. The Canadian manufacturer would do well to follow the example of his southern neighbour and market his products in Europe.

The opportunities for licensing are numerous, and Ideal Equipment Co. Ltd. itself is exploring licensing and distribution possibilities with more than 10 European equipment manufacturers. Certain European companies will distribute and service our equipment, and we will handle certain European packaging machinery which will complement our line.

Other marketing factors to consider are that advertising brochures and instruction manuals should be in the foreign languages concerned to make sure information about your product reaches the customer; machinery must conform to the Electro-Technical Association (VDE) standards and the metric system must be applied.

Interpack '73

The Interpack fair was impressive in scope and magnitude. It was interesting to note the number of U.S. firms exhibiting, such as Doughboy and Weldertron. Ideal Equipment will participate at the next Interpack in 1975. By that time, we will be able to follow up any leads from potential customers who visit our exhibit.

SECTOR 4 -- HEAT SEALING EQUIPMENT

By K. LEE

WRAP-O-MATIC MACHINERY CO. LTD.

German/European Packaging Industry

Trends

The trend toward wider application of shrink packaging in Europe is expansionary with greater automation in the use of shrink for food packaging. Considering products other than foodstuffs, such as wallpaper, magazines, periodicals and hardware items, automatic and high speed packaging is being accomplished successfully and new machine designs are opening the market to far greater use of soft film wrapping and shrinking.

A new family of machines, designed to package large, bulky items such as furniture, carpet rolls, kitchen appliances and bicycles, offers good promise for the future and has attracted the special interest of prospective clients in North America.

Pallet shrink systems are widely used throughout Britain and the rest of Europe. In Germany, estimates are that 40 per cent of all pallet loads are now being processed in soft film and it appears that this figure will expand especially since there are now economical shrink machines on the market.

In general, the use of soft film, for wrapping, shrink packaging and bagging, is growing rapidly with the advent of newer machine designs. These help to fill the high speed requirement of many customers and provide lower-

cost machines for low production runs of many other forms of packaging such as pallet loads.

Materials

The use of materials is much the same as in the North American market, bearing in mind that the cost of each different type (P.V.C., polypropylene, polyethylene and polythene), is comparable with Canadian/U.S. prices.

In Germany, however, many producers of shrink polythene prepare the material with tiny perforated holes throughout. The objective is greater ease in the process of shrinking. Improvements in the shrinking of some difficult packages were observed using this material. The author knows of only one company in the U.S. which produces perforated polyethylene.

A system of stretch film wrapping of pallet loads was also observed. This is certainly a new approach to the art of packaging which formerly had been confined to using shrink materials, the majority of which were polyethylene.

Impact of Enlarged EEC on the Industry

Considering the market the enlarged EEC makes available to industry, the machine manufacturers with whom I talked (which included suppliers of automatic bag making machinery from Germany, shrink packaging machines from Italy and shrink packaging machine manufacturers from Britain), were not able to say if there was any significant change in their business or in the promise of new markets. Generally most people felt improvements in the price and supply of food-

stuffs, labour and raw materials, have occurred because of the enlarged EEC. But, most felt there was no increase in markets since most companies already export equipment throughout Europe.

Major Markets

The major purchasers of shrink wrapping machinery and materials are the food processors such as dairies, breweries and canners of food and beverages.

Germany, Britain and the Benelux countries are the major markets for shrink packaging. France, Italy, Austria and the Scandinavian countries are experiencing growing demands for this type of packaging.

Bearing in mind the constant development and expansion of the food packaging market, I view with great interest the sophisticated systems of machinery which now will dictate our own expansion of shrink packaging for furniture, building materials and the bulky and difficult-to-handle products.

Overall Impressions and Other Observations

The state of the art of shrink packaging in Europe, and in Germany particularly, is high and products once unmanageable are now being processed by well-designed systems. The market for shrink packaging is growing at an alarming rate and, insofar as machine manufacture is concerned, I believe the job of selling shrink packaging is not a problem. It is only a matter of selling your machines on a competitive basis.

German/European Packaging Equipment

Trends

European machines designed for food, beverage and bundle packaging, are not viewed as competitive in terms of speed as are many machines available in North America which are of more sophisticated design and which incorporate many unique features and tie-in machines such as tray forming, tray loading and collating equipment.

Higher speed packaging of such items as magazines, with automatic labelling for home delivery, was observed at speeds up to 120 items per minute. There is also a variety or large-dimension machine systems for shrink packaging that represent a new family of designs that offer great promise.

Specialty manufacturers were not hard to locate. These are companies that are prepared to produce equipment for shrink packaging on a one-off basis for difficult or non-repetitive selling applications.

Codes and Standards

No particular codes or standards were observed. However, the greater use of safety devices would seem to indicate that authorities have cracked down on unsafe machinery designs.

Cost of Equipment

Considering the value of the German Mark, machine quality and effective speed rates, Canadian-built machinery, in my opinion, is generally lower in price than European equipment and includes such additional features as greater

size and speed capabilities. I believe, however, that the refinements and general appearance of European designs with their use of plated work, baked enamel finish and sophisticated appearance, dictates the need of a more glamorous uplift to Canadian designs.

I believe Canadians can sell to Germany on an equal price basis and with a suitable profit margin if we improve the appearance of our designs and use, as much as possible, components that are readily available in Europe for replacement of parts.

Level of Technology

With the exception of high speed case wrapping systems, Europeans lead North Americans in the use shrink packaging. They have systems for shrink packaging products that are not as yet shrink packaged in North America.

Overall Impressions and Other Observations

A great deal of market selling of shrink must still be done in North America before the shrink industry can enlarge on the same dramatic basis as Europe's. Taking into account freight classifications, store marketing and the need for little or no concept selling, Europe presents a promising market to Canadian equipment manufacturers.

As the volume of sales increases in Europe, a trend toward specializing seems to be developing among local manufacturers. Some machine designs observed were produced by companies which only construct equipment for a segment of the industry. For example, there was a stainless

steel shrink wrapping machine for dairy applications which had accumulating stations for ice cream or milk cartons. Other examples were large wrappers and tunnels for textiles and carpet rolls, and machinery designed specially for newspaper or magazine wrapping which had unique infeed accumulating devices.

The specializing of shrink machinery will bring about a more sophisticated range of products and I view the need to penetrate the market NOW as a must.

Marketing Requirements and Opportunities

Marketing Methods

In terms of market involvement, I view the agency/distributor route as the most economical with which to start. However, because of the wide open market and the knowledge that is required to produce favourable results, a more direct form of selling is needed -- perhaps a joint venture or licensing arrangement with a combined effort in marketing.

Volume sales of low-cost units, in my opinion, would require that these units be manufactured in part, or in whole, in Europe. Certain more costly designs could be retained for manufacture in Canada. Volume sales can be obtained and I am confident that, with the right partners in Europe and the right approach in an established program, a Canadian machine manufacturer can do well in that market.

Servicing Requirements

Consideration should be given to servicing of machinery, either by making parts available or by providing on-the-job

service engineers. The individual product, its value, profitability and technical use, will dictate which approach to use.

To assist in servicing, a Canadian manufacturer, by proper selection of components, can buy European-designed (and often manufactured) parts such as relays, in Canada. By combining this approach with, perhaps, a centrally located inventory of components in Europe, I believe no serious difficulties in servicing or supplying parts will occur. The rapid air service from major Canadian cities is an excellent guarantee of this.

Other Marketing Approaches

Several Canadian companies have offices or sales staff in Europe. Depending on the profitability of an individual product line, I believe this approach is excellent. An office-showroom-parts type depot, where marketing can be managed directly, is the ultimate approach if funds can be made available. Alternatively, the same facility with several manufacturers from Canada sharing overheads would be a great start.

Of course, the Federal Government could be approached to consider setting up a Canadian Packaging Machinery showroom with facilities available to all parties who can permanently demonstrate systems, many of which complement each other, and a nearby office where sales could be generated on a direct basis.

When considering the introduction and expansion of your product line, a company employee is far better than an agent.

Opportunities for Direct Sales

Direct sales from Canada are a distinct possibility for unique machines or packaging system designs. However, well-established representation would be necessary to obtain long-term results.

Licensing Opportunities

Licensing opportunities are, in many cases, of great interest depending on machine volume sales and specialty of manufacture. I view this approach as part of our program toward expansion of our products into Europe.

A partnership can usually produce immediate results unless the European partner is strictly a sales agency which, I would judge, is quite often lacking in technical capability. Although many agents provide servicing, parts inventory, etc., I strongly believe a manufacturer with a sales staff in machinery, who may eventually manufacture in part, is the greatest prospect on a long-term basis. The licensing arrangement follows as an interesting prospect and is usually dictated by volume and profits.

Other Comments

The Canada image is strong in Europe in general. I did not view the British/German trade as dramatic and I am of the opinion that the economic situation and labour problems in Europe permit Canadians to take part in a greater volume of trade with Europe than is generally felt possible.

Many Canadians believe costs will be out of line when such things as tariffs and freight are considered. I

believe, however, that the market is there and our technical abilities, image and systematic approach will pay off in dividends. To this end, the assistance provided by Provincial and Federal Governments regarding foreign markets should be exploited fully.

Interpack '73

The Interpack show is an excellent vehicle for the promotion of packaging machinery in Europe provided that such groundwork as sales, service and parts has been established.

Interpack can open the door to sales in Europe. Equally important, it attracts a large number of world travellers who can possibly draw world business. This factor should be provided for in terms of literature and approach.

I believe strongly that participation in the show must be combined with a strong personal effort to establish a base of operations, preferably beforehand. As such, one can expect favourable business to evolve throughout the show period.

SECTOR 5 -- POUCH PACKAGING

By H. S. STEVENSON

DELAMERE & WILLIAMS COMPANY, LIMITED

German/European Packaging Industry

There is a trend toward increased portion packaging in Europe but this still at a lower level per capita than in North America. Production speeds are slower but European machines are more flexible in their ability to changeover than those of North America. The U.S. has many machines that are competitive with those featured in Europe, therefore, Canada has a broad choice from which to emulate for domestic use and export.

Varied requirements and slower speeds have limited complete processing/packaging operations in Europe. At the same time, mass production and higher volumes in North America have necessitated, and economically justified, higher speed and completely integrated systems at more costly expenditures. Initial expenditures on these installations are often amortized over one to two years. The major continuing costs are product and materials, with operating costs, and then labour to a lessening degree.

Europe appears to use more plastics in packaging than North America mainly through necessity because forest products there are more expensive per package. The Europeans have been innovative in some plastic packaging concepts as a result of more liberal approval of plastics by governmental

agencies than in North America. All materials used in Europe are available in North America but are more stringently screened here by such bodies as the Food and Drug Authority.

European packaging machinery manufacturers have developed to the point where they can out supply the market available solely within the EEC. Their marketing efforts have outgrown the EEC borders and now span the world. German manufacturers provide more than half of this marketing effort.

The major markets for equipment are the food, drug and chemical industries. These are followed closely by such industries as merchandising and textiles.

Naturally, the greatest demand occurs in regions of highest population density and is dependent upon the standard of living -- a good indicator of a potential market.

German/European Packaging Equipment Trends

The increasing number of users is creating a greater demand for higher speed machinery.

Teabaggers

Previous maximum speeds of 100 to 150 pouches per minute of European machines have been increased to 1,000 to 1,400 pouches per minute, prior to the teabag being automatically cartoned for a plain pot-use bag. The market for these units is primarily Britain. Canada and Australia are other possible markets.

Tagged and enveloped bags are still made by European

equipment at speeds of 60 to 150 pouches per minute. These are then automatically cartoned for use as cup-size bags. The market for these machines is quite international, including continental Europe and the U.S., and to a lesser extent Japan, Australia and Canada.

The plain pot-size teabag has become a base commodity to be produced at the lowest price. In fact, competition has driven the selling price below the producers' cost. In such a situation, the quality usually deteriorates. Also, in this case, excessive use of filter paper should lead to future reappraisal for lower material costs.

Quality packaging of pot-use teabags on Canadian machines at 400 to 500 pouches per minute must compete with the 1,000 to 1,400 pouches per minute speeds available on machines produced by the four competing European manufacturers. Ways must be found to combine two or more machines so they can be operated by one operator. Even if this is accomplished, the selling price will be more than double the specially designed European machines. Therefore, the only solution is to more aggressively market teabag machines that tag, envelope and automatically carton cup and pot-use teabags.

Vertical-Form Fill and Seal (three-sided seal)

Europe, but predominantly Germany, has for many years produced an excellent vertical form, fill and seal machine that has been imitated by many, matched by some, and excelled by only a few. The most extensive usage of these machines is in the food, drug and chemical industries in

handling such items as free-flowing granules, powders, cereals, cookies, mixtures, liquids, pastes and oils.

Completely integrated systems including cartoning, gas flushing and various ancillary units have also been developed.

Current Usages

Bag-in Boxes or Lined Cartons

Just look at your supermarket shelves and you can see the use of squared-bottom bags. Such bags replace lined cartons with their upstanding soft packs and have numerous other uses. The machines handling these bags can accept all known means of filling. Extensive bag sizes and types are employed and there is a maximum ease of changeover to alternate sizes. This type of packaging machine from Germany offers one of the best sales potentials for a machinery manufacturer.

Speeds are generally at 30 to 80 pouches per minute, depending on the films or laminates used and the size of the pouch. Speeds can be doubled by having twin filling and sealing heads on a single frame.

Single and Multi-Lane (four-sided seal)

Vertical or Horizontal

Europe has used this form extensively at speeds of 100 pouches per minute for a single lane. For about 10 years, multi-lanes have been used to achieve speeds of up to 400 pouches per minute. In the past two years, Europeans have redesigned the speed-limiting elements of the machines and

have produced equipment that operates at 1,200 pouches per minute on two lanes using an easily sealed paper such as teabag filter paper. Speeds are proportionately lower for heat sealable papers and laminates, particularly foils which reduce speeds to 50 pouches per minute, per lane. Granules, liquids, pastes and tablets are the most common products packaged.

Some manufacturers have developed horizontal flat versions for special applications such as high speed teabag pouching. In general, these are not as widely used, possibly because of seal contamination.

Horizontal Form, Fill and Seal Pouch Machines

These intermittent motion (I.M.) and continuous motion (C.M.) machines, together with the vertical form, fill and seal machines, have been among the most highly utilized in the packaging industry.

A U.S. manufacturer of I.M. machines is the undisputed leader producing the same number of units as all the Europeans combined. Speeds of I.M. pouch machines are normally 100 pouches per minute. In the past four years, U.S. and European companies have produced a 200 pouch per minute twin lane unit. These speeds can again be doubled (with the limited application in small pouches) by twinning the single and double lanes. Most forms of pouches produced are single, double, gussetted and, more recently, stand up for liquids and powders. The forms are not as extensive as those produced on the vertical pouch machine.

One Swedish manufacturer produced a six pack of noncarbonated soft drink pouches in a stand-up pouch at speeds of 40 to 50 pouches per minute.

Continuous motion pouch machines are for high speed, large volume production. The high speed machine elements and completely integrated systems, including cartoning, must provide maximum precision and tamperproof dependability. These machines require a longer conversion time than the quick-changeover, slower machines. European machines are still predominately of the latter type, operating at speeds of 100 to 200 pouches per minute. Some have attained 300 pouches per minute with limited success and integrated systems.

In the U.S., a manufacturer produces a medium-sized, 300 pouches per minute machine that has a more advanced system than ones in Europe. For the past 12 years, a Canadian company has produced for the international market an even more sophisticated continuous motion pouch machine, complete with a fully integrated system which is currently operating at 500 pouches per minute. This machine is in direct competition to the U.S. machine and to a lesser degree with the European units. Also available on the market are highly priced 800 pouch per minute machines.

With the increase in pouch usage in Europe, the market for higher speed machines should have a greater potential.

Codes and Standards

Electrical

Usually North American standards are more exacting than European standards and machines often require redesign to conform to Canadian Standards Association or Underwriters Laboratories standards.

Mechanical

European machine construction is generally lighter as they were originally designed for slower speeds. Even the more recently designed machines are still lighter than North American units. In general, the European machines are extensively cleaned up and polished. These factors reflect the frugal use of materials combined with lower labour rates.

Safety

Some thoughts are obviously being given to safety since a large volume of European machinery is for export. The OSHA code has not been forced upon European manufacturers as yet by the North American user. When applied it will certainly be reflected in higher European equipment prices.

Sanitary

European machines in general are as clean as required by such sanitary minded users as the dairy, food and drug industries.

Cost of Equipment

European machines were recently 30 to 40 per cent cheaper than comparative North American models. This was due to clever designs and lower labour rates. Slower operative

speeds, limited production requirements (primarily one-shift operation), and completely open efficiency demands also contributed to lower machine prices. The North American machine is used for two and three-shift production with predetermined higher and consistent efficiency, and is subjected to more casual operating labour.

More recently, the price difference has been cut in half by currency realignments and the effects of higher European labour costs, labour scarcity and inflationary pressures. Europe (and Japan) has obviously recovered and is taking full advantage of its lower standard of living.

Level of Technology

In packaging machinery, the European engineer seems to be leading the North American in competitive moderate-speed designs. This could be subject to reversal during the next five to 10 years as the monetary and labour conditions change. Market demands should also create more iniative among the North American machinery manufacturers.

Shrink wrap has developed more extensively in Europe than in North America because in Europe plastics are cheaper and more available than paper products. Acceptance of shrink has also been slow in North America since users preferred the apparent protection of their existing packages such as cartons and cases. Shrink wrap will grow in North America as the impetus of lower package costs permits more quality rationalization.

Marketing Requirements and Opportunities

Preferred Marketing Methods

Where possible, attempts should be toward a direct sale. Usually, volume will permit this effort and expenditure. The small manufacturers, however, should primarily use agents. This is probably true of most Canadian packaging equipment manufacturers.

A manufacturer could initiate or supplement his volume by licensing in or out, or act as an agent for another supplier. Usually, an allied line is preferred or units that may complement or be an extension of his own product line.

Servicing

Most Canadian manufacturers are not big enough to support regional service. Usually servicing is done directly from his plant or through trained personnel employed by the agent. The latter is at best a compromise as many agents are too widely diversified. It appears that few appreciate the necessity to commit the time and expense of the education or training phase.

Usually, a manufacturer is subjected to considerable turnover with agents when both or either party get disillusioned over results. The agent is wholly in the game for the dollar and when this is recognized, and provided for in the formal arrangements, the chances of a successful marriage are enhanced.

Other Approaches

Other approaches to marketing include exhibitions, journal advertisement, direct mailing to prospects, periodic

trips, use of government agencies, contacts with North American divisions in Europe, industry survey, subscription to periodicals, and extensive reading of same.

Opportunities for Direct Sales

Opportunities for direct sales exist for teabaggers (tagged and enveloped) pot and cup use; high speed pouch machines of 300 to 500 pouches per minute; and intermittent pouch machines of 100 to 200 pouches per minute.

Licensing Opportunities

Canadian manufacturers can most directly increase their volume through licensing both in and out. Internal growth through development is demanding and expensive. Consequently, by its nature, licensing tends to help a small manufacturer.

Other Comments

European packaging machine requirements are too varied for any one manufacturer to satisfy even within a given line. Continued importation appears to be the solution. Even with the continued growth in Canada, a greater growth potential exists in Europe as direct shipments or granting of licenses.

Interpack '73

This show is the most concentrated of a widely diversified industry. Attendance was 150,000 compared with the next largest packaging show which is the PMMI show in the United States which has an attendance of 35,000. About half of the visitors to Interpack were from around the world

and usually had the authority to purchase or to influence the decisions to purchase.

A Canadian exhibit at Interpack would result in the best return for efforts and expenditures. The cost to exhibitors is usually twice that of the PMMI which is still proportional to Interpack. Results are certainly related to efforts but the main criteria are the type, quality, performance and selling price of the equipment demonstrated.

An adverse effect of the show is the public display of products to all possible competitors. Europeans have been particularly vulnerable to plagerism and are quite sensitive and protective. North America has been more open and relies on professionalism and competence to stay ahead of competition.

We have full confidence that our packaging machines will match the general level of appearance and performance of most of the European machines. They exceed many in total sophistication.

APPENDIX A

WEST EUROPEAN PACKAGING EQUIPMENT DEMAND ($ Millions)

	Domestic Market		Imports	
	1971	1975 (Est.)	1971	1975 (Est.)
Britain	88	112	40	58
France	69	105	40	71
Italy	67	73	15	17
West Germany *	48	86	13	19
Switzerland	36	54	24	36
Netherlands	28	46	27	40
Spain	16	27	15	25
Sweden	16	24	12	16
Belgium	14	22	14	19
Denmark	9	19	9	17

* Packaging equipment for food use only

MAJOR EUROPEAN EXPORTERS, 1970 ($ Millions)

	Destination			
Exporter	Western Europe	North America	Others	Total
West Germany	71	8	54	133
Italy	24	2	24	50
Britain	17	3	26	46
France	9	1	12	22
Sweden	9	1	7	17

APPENDIX B

Packaging Machinery Tariffs

Packaging machinery is classifiable in the British Customs Tariff and in the Common External Tariff (CET) of the EEC under tariff heading 84.19 and is at present dutiable in these markets as follows:

Britain

		Rates of Duty	
Tariff Heading	Product	Preference	Full
84.19	Packaging Machinery	Free	7.5%

EEC (CET)

84.19	Packaging Machinery	5%

Britain became a member of the European Economic Community effective January 1, 1973. Under terms of the agreement, there is a transitional period during which Britain will adapt its import regulations to those of the EEC. Britain is required to progressively eliminate barriers to trade with the Common Market while phasing out tariff preferences to Canada and other Commonwealth countries. In the industrial sector, these adjustments will be phased over several years and will not in fact be completed until July 1, 1977.

Effective Dates	Elimination of Tariffs Between Britain and EEC	Adjustment of British Tariff to CET Imports from Third Countries
April 1, 1973	20%	--
January 1, 1974	20%	40%
January 1, 1975	20%	20%
January 1, 1976	20%	20%
July 1, 1977	20%	20%

Based on the foregoing, it is calculated that the free entry under Commonwealth Preference on these products will be adjusted toward the Common External Tariff by the following stages:

Product	Jan. 1/74	Jan. 1/75	Jan. 1/76	July 1/77
Packaging Machinery	2%	3%	4%	5%

As of April 1, 1973, Britain abolished the purchase tax and replaced it with a value added tax (VAT) which is levied at the rate of 10 per cent on the duty paid value of the goods at importation. VAT, however, is considered to be trade neutral inasmuch as it will be charged, at the same rate, on both domestic products and imported goods.

Denmark Tariff for Packaging Machinery

Denmark became a member of the Common Market at the same time as Britain and also has a transitional period during which to adapt to EEC import regulations. It has been calculated that actual 12 per cent rate on these products will be adjusted toward the Common External Tariff by the following stages:

Tariff Heading	Product	Adjustment of Danish Tariff to CET	
84.19	Packaging Machinery	Jan. 1/73	12%
		Jan. 1/74	9.2%
		Jan. 1/75	7.8%
		Jan. 1/76	6.4%
		July 1/77	5%

APPENDIX C

CANADIAN TRADE OFFICES IN EUROPE

AUSTRIA

Commercial Counsellor
Commercial Division
Canadian Embassy
1010 Vienna, Austria

BELGIUM

Commercial Counsellor
Canadian Embassy
rue de la Science, 35
B-1040 Brussels, Belgium

BRITAIN

London

Minister (Commercial)
Canadian High Commission
One Grosvenor Square
London, WIX OAB, England

Glasgow

Canadian Government
Trade Commissioner
Ashley House
195 West George Street
Glasgow G22HS, Scotland

DENMARK

Commercial Counsellor
Canadian Embassy
Prinsesse Maries Allé 2
Copenhagen V, Denmark

FRANCE

Minister-Counsellor (Commercial)
Canadian Embassy
35 Avenue Montaigne
Paris 8, France

GERMANY

Bonn

Minister-Counsellor (Commercial)
Canadian Embassy
Freidrich-Wilhelmstrasse 18
53 Bonn, West Germany

Duesseldorf

Consul General and
Senior Trade Commissioner
Canadian Consulate General
Immermannstr. 3
4 Duesseldorf, West Germany

Hamburg

Consul General
Canadian Consulate General
Esplanade 41-47
2000 Hamburg 36, West Germany

GREECE

Commercial Secretary
Canadian Embassy
4 Ioannou
Ghennadiou Street
Athens 140, Greece

IRELAND

Commercial Secretary
Canadian Embassy
65/68 St. Stephen's Green
Dublin 2, Ireland

ITALY

Rome

Minister (Commercial)
Canadian Embassy
Via G.B. De Rossi 27
00161 Rome, Italy

Milan

Consul General and
Senior Trade Commissioner
Canadian Consulate General
Via Vittor Pisani 19
20124 Milan, Italy

NETHERLANDS

Commercial Counsellor
Canadian Embassy
Sophialaan 7
The Hague, Netherlands

NORWAY

Commercial Secretary
Canadian Embassy
Postuttak
Oslo 1, Norway

PORTUGAL

Commercial Counsellor
Canadian Embassy
Rua Rosa Araujo, 2-7
Seventh Floor
Lisbon 2, Portugal

SPAIN

Commercial Counsellor
Canadian Embassy
Apartado 117
35, Nunez de Balboa
Madrid, Spain

SWEDEN

Commercial Secretary
Canadian Embassy
P.O. Box 16129
S-103 23 Stockholm 16, Sweden

SWITZERLAND

Commercial Counsellor
Canadian Embassy
Kirchenfeldstrasse 88
3000 Berne, Switzerland

TURKEY

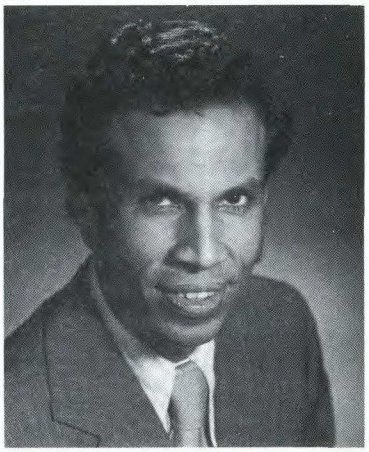
Commercial Counsellor
Canadian Embassy
Nenehatun Caddesi 75
Gaziosmanpasa, Ankara, Turkey

YUGOSLAVIA

Commercial Counsellor
Canadian Embassy
Proleterskih Brigada 69
11000 Belgrade, Yugoslavia

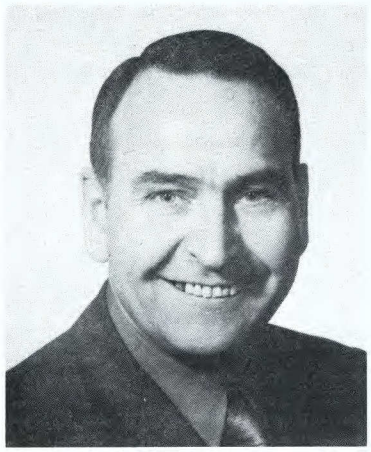
Mr. Caulford has been general manager of Phin Universal, Division of Canadian Stackpole Limited, Scarborough, Ontario, since 1966. He also acted as international marketing manager and conducted negotiations with many countries for exports of the company's labelling machinery.

After graduating from a mechanical design course in Toronto in 1941, Mr. Caulford worked at John Inglis and the Canadian General Electric Company and, in 1947, joined the Phin Sales Company as a draftsman and designer of packaging machinery. He was involved with wrapping machinery for the food, tobacco and candy industries, and later with development of the Phin labellers and carton forming machines. Mr. Caulford became engineering manager in 1956.



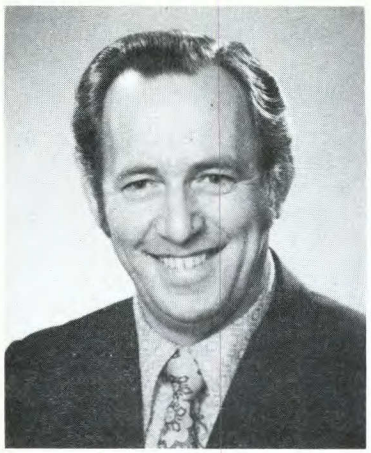
Mr. D'Souza is president of Fibracan Inc., Chomedey, Quebec, a company that designs and builds a complete range of production, printing, automation and packaging machinery for cups and containers and undertakes turn-key projects abroad.

Edgar D'Souza was born in India and graduated from Bombay University with a Bachelor of Science in physics and mathematics, and from Syracuse University with bachelor degrees in electrical and industrial engineering. He has worked in Britain, India and Canada in the general engineering field, particularly in the planning and implementing of plant extensions and installations. Before joining Fibracan as a founding shareholder eight years ago, he worked with KCS Limited, a management consulting firm.



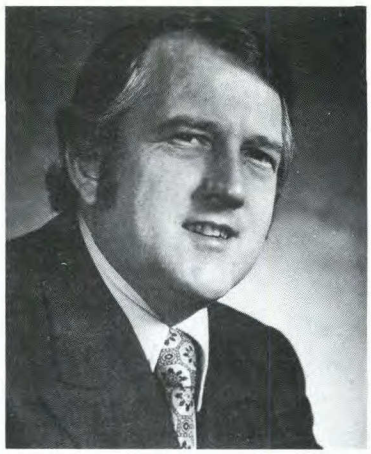
Mr. Hagedorn is president of Pyramid Machine Works Ltd., Surrey, British Columbia, which he founded in 1961 to design and manufacture packaging machinery and allied equipment. Mr. Hagedorn emigrated to Canada in 1957 from Germany where he was born and where he trained as an engineer.

Mr. Katz has been president since 1953 of Ideal Equipment Company Limited, Montreal, Quebec, a company started by his father in 1930. Born and educated in Montreal, Mr. Katz worked for several years as a tool and diemaker and for 12 years as a production manager. Ideal Equipment has been manufacturing packaging equipment for the past 12 years.



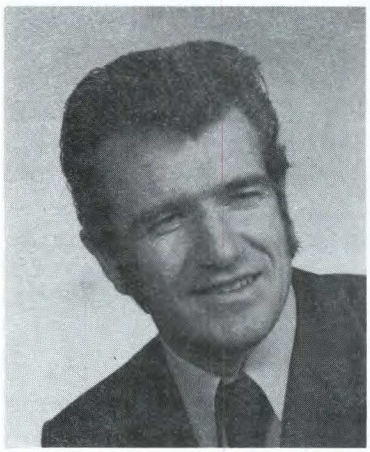
Mr. Langen has been president since 1959 of H. J. Langen & Sons Ltd., Rexdale, Ontario, a packaging machinery manufacturing company. Born and educated (Mechanical Engineering VMTO Nijmegen) in Holland, he apprenticed with H. J. Langen & Sons N.V., an associate of the Canadian company. He was responsible for service and field installations under the supervision of the plant manager.

Ronald Langen emigrated to Canada in 1953, joined the Pneumatic Scale Corporation and the Continental Can Company and later worked in sales and service for machinery and equipment in various areas of meat processing and packaging. He began to manufacture packaging machinery in 1956.



Mr. Lee is president of the Wrap-O-Matic Machinery Co. Ltd., Toronto, Ontario. A pioneer in heat shrink packaging, he began designing systems while the North American industry was still in its infancy.

Born in Hamilton, Ontario, Mr. Lee set up facilities in Toronto and continued to add new designs to his product line. Today he has offices and dealers throughout North America and in other countries. Wrap-O-Matic gives priority to automated machines for case wrapping and bundle packaging, and higher speed machinery for presentation packaging.



Mr. Oakley is a commerce officer with the Machinery Branch of the Department of Industry, Trade and Commerce, Ottawa, Canada. He specializes in trade promotion and industrial development activities for a number of equipment manufacturing industries including packaging and food processing.

Barry Oakley was born in Liverpool, England, where he completed a general mechanical engineering apprenticeship. He came to Canada in 1961 and, after working with a number of Canadian manufacturers including a major forest industries company, joined the department in 1969. Mr. Oakley received a Bachelor of Engineering (mining engineering) degree from Carleton University, Ottawa, and is a member of the Association of Professional Engineers of Ontario.

Mr. Schroeter is a project manager with the Fairs and Missions Branch of the Department of Industry, Trade and Commerce, Ottawa, Canada. He is responsible for organizing Canadian participation in foreign trade fairs and in-coming and out-going trade missions.

Born in Germany, Helmut Schroeter emigrated to Canada in 1957 and received a Bachelor of Commerce degree from Sir George Williams University, Montreal. Before joining the department, he held various positions in German and Canadian industry in sales, purchasing, banking, accounting and promotion. Mr. Schroeter joined Industry, Trade and Commerce in 1967 following an assignment with Expo '67 in Montreal.

Mr. Sinclair is president of Edson Packing Machinery Limited, Hamilton, Ontario. The company designs and manufactures automatic and semi-automatic case packing equipment.

James Sinclair received a Bachelor of Arts degree from the Royal Military College and a Bachelor of Commerce from Queen's University. He held various sales and production positions with Donald Ropes and Wire Cloth Ltd. for seven years, two of which were spent with the parent company Westfallische Union AG in the Federal Republic of Germany. He joined Greening Industries Ltd. in 1964 as general manager and was appointed vice-president, marketing and engineering, three years later. In 1970, Mr. Sinclair moved to Edson Packing Machinery as president.

Mr. Stevenson is vice-president and general manager of Delamere & Williams Company, Limited, Toronto, Ontario, a company that designs and manufactures high speed packaging machinery. Henry Stevenson has a Bachelor of Science degree in mechanical engineering and has done graduate work in design engineering and management. He is also a director of Delamere & Williams and Pneumatic Scale Corporation of Quincy, Massachusetts.