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Manitoba Design Institute.

Product design and development  
program for Manitoba. Winnipeg, Dept.  
of Industry and Commerce, 1973.



# MANITOBA DESIGN INSTITUTE

PRODUCT DESIGN AND DEVELOPMENT PROGRAM

FOR MANITOBA

-A Federal/Provincial Joint Demonstration Project-

April 1973



PRODUCT DESIGN AND DEVELOPMENT PROGRAM

FOR MANITOBA

-A Federal Provincial Joint Demonstration Project-

A. PROJECT OBJECTIVE

To select and establish a product design and development unit under a two year contract to carry out indepth consulting assistance to approximately twenty to thirty Manitoba companies, for the purpose of

- upgrading the design and quality of existing product lines,
- developing design innovative new product lines,
- improving the use of design in the manufacturing process, engineering function, and,
- devising and developing well designed marketing and distribution programs and strategy, including visually designed marketing aids,

for each participating Manitoba company.

B. POTENTIAL BENEFITS

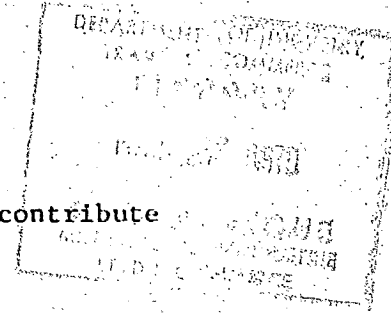
The application of industrial design, as a managerial practice and intrinsic part of a company's policy and procedures, is a relatively unknown concept in our manufacturing community as a result products are often poorly designed, wastefully developed and generally lack the degree of marketability so necessary to compete effectively in domestic and international markets.

This deficiency is particularly handicapping our Manitoba companies which are relatively small in size and have to compete aggressively in their respective markets.

The scarcity of a planned approach to design management is evidently due to a lack of awareness of its relevance to modern business practices and ignorance of its potential benefits.

To some degree management in Manitoba has been exposed to industrial design concepts through the Product Review Boards program of the MDI and the Design Management Centre courses at the University of Manitoba. The results from this effort have been encouraging but specific action needs to be taken to encourage individual firms to follow up on these initiatives.

The Product Design and Development program would contribute towards achieving the following results:



Primary

(a) Establish firmly the application of soundly managed industrial design in the participating companies with all the implicit benefits resulting from integrating such modern concepts into their managerial structure,

(b) The competitive position of the companies should be strengthened considerably through diversification of product lines and enhancement of their marketability,

(c) Foster selectivity in the choice of product lines suitable for manufacture by relatively small establishments resulting in efficiency in the production and business operations of these establishments,

Secondary

(a) Innovative and imaginative management should hopefully emerge and become developed to the extent that they will more effectively prove themselves and grow into medium or perhaps even large-scale operations,

(b) New employment opportunities should be created on a higher wage scale because the productivity will be increased. By the same token, employment creation in this secondary sector will have a definite effect on creating additional jobs in the tertiary or service industry sector,

(c) A more decentralized pattern of industrial growth, in terms of geography, should contribute to regional Manitoba development. The selected types of industry are suited to decentralized development and can form the basis for measures to guide and reinforce growth of such industries in regional Manitoba areas.



C. PROJECT COST

A project cost of \$200,000.00 over a two year period has been established and is to be shared equally by the Federal and Manitoba governments.

Participating companies are expected to contribute an additional \$10,000.00 to \$20,000.00.

Based on DREE cost/benefit criteria (\$5,000/job in Incentive Region B which applies to Manitoba) a minimum employment increase of forty jobs would have to be generated from this incentive program.

A projected increase of from 100 to 150 additional jobs, as a result of this program, is realistic and attainable. This would mean a cost/benefit ratio of \$2,000 to \$3,000 per job created in terms of total cost, or \$1,000 to \$1,500 per job based on Manitoba contribution.

The job creating potential will have additional positive results through the multiplier effect.

D. PROJECT PROFILE

1. The Unit

The product design and development unit will consist of an industrial designer, a production engineer and a marketing specialist. As the individual company project may require, additional specialized professional resources may be called in; this may be within the disciplines represented by the team itself (design, engineering and marketing) plus other specialized services from the psychology, sociology, medical and other fields of professional activity.

Each unit member will be under contract for a two-year duration on a full time basis.

2. Parameters of Company Projects

Each selected company will be audited in terms of its present state of design and product management. This will enable the team unit to draw up a specific plan of action with the result that existing



products will be upgraded in terms of design, quality and marketability, the process of manufacture will be improved in terms of materials and labor cost input, and the marketing program will be made more effective.

The first object of the team unit would be to concentrate on the existing line of products, assessing their design, quality, marketability, process of manufacture and the existing scope of sales and distribution.

Secondly, but definitely not with less emphasis, the team unit would focus on new product development potentials.

In every case, the individual company project would encompass a total effort in terms of product design and development, specification of manufacturing process and method and a comprehensive guideline for marketing and distribution programs.

The envisioned program is definitely not an "ad hoc" advisory service to industry but an intensive direct involvement in the firm's activities. The bulk of the counselling will take place in the plant.

The team unit will not only produce a set of specifications, working drawings and marketing programs but assist the company in implementing them until they are operational.

### 3. Criteria for Company Selection

The selection of companies should be along criteria which take into consideration

- their present state of product design and quality,
- other "problem" areas such as production, marketing, distribution, etc.,
- their growth potential in terms of employment, sales and export orientation,
- a representative mix of industry sectors,
- emphasis on small scale manufacturing operations,
- at least half of the enterprises located in rural Manitoba,
- local ownership.



E. PROJECT ADMINISTRATION

(1) Management and Control

The whole program represents a joint effort between the Manitoba Design Institute (Department of Industry & Commerce) and the Office of Design (Department of Industry, Trade & Commerce) in Ottawa.

By mutual agreement the MDI will operationally manage and control the program.

The Executive Secretary will in effect be the Project Manager and present quarterly progress and accounting reports to a Liaison Committee composed of: Mr. I. H. Blicq, Asst. Deputy Minister of Industry & Commerce; Mr. Robbins Elliott, General Director, Office of Design (Dept. of I.T.&C.) and Mr. Fred Cotton, Director of the Manitoba Design Institute.

(2) Funding and Accounting

The project is to be funded jointly by the Federal and Manitoba Governments and fees from participating companies.

A project budget of \$200,000.00 over a two year period has been established, to be shared equally by the two governments.

It is estimated that industry will contribute an additional \$10,000.00 to \$20,000.00.

A separate operational trust account will be established from which funds will be drawn in accordance with pay-out procedures currently used by the Department.

Authorization for disbursements will include those from the Executive Secretary of the MDI and the Departmental Accountant of the Manitoba Department of Industry and Commerce.

Quarterly statements of receipts and disbursements as well as a fully audited year-end statement will be prepared.



(3) Work Base

The Manitoba Design Institute is to provide office space and supporting stenographic, clerical and administrative services for the team unit.

MDI staff, will make the selection of participating companies and carry out all preparatory work necessary for the efficient execution of the project in consultation with the Productivity and Management Development Branch, the Trade and Industry Group of the Dept. of Industry & Commerce and the Design Management Centre (U of M, Faculty of Administrative Studies).

F. PROJECT IMPLEMENTATION

(1) Selection of Professional Team

Aside from the preparatory phase of the project, the selection and appointment of the team unit is the most crucial aspect of putting the project on stream.

Job descriptions will be advertised and directly mailed to design, engineering and marketing consulting firms to solicit applications.

One major criterion for selecting the individual team members will be their professional background and competence. It might be worth considering the recruitment of professionals from well established firms and thus draw up a contract with a professional group rather than an individual. This factor is particularly relevant in case of designers who mostly work as individual free lance designers.

Supporting this argument is the fact that the team individual would have a larger resource base to draw on as well as providing back up in case of illness or other untoward incidents.

In each case the hiring would be done on a contract basis for a two-year duration.

## DESIGN MANAGEMENT DEVELOPMENT PROJECT

PROPOSAL BY  
BLICK - WINNIPEG

### Statement of Need

Design management, as a managerial practice and intrinsic part of a company's policy and procedures, is a relatively unknown concept in Canada generally and Manitoba specifically. As a result, products are poorly designed and they lack the marketing potential required to effectively compete in the market place.

This deficiency factor is quite evident in small scale manufacturing operations, particularly those which are located in rural Manitoba.

### Project Objective

To upgrade the design and quality of existing product lines, develop where feasible new products or product lines, improve the manufacturing process functions and the development of supporting marketing aids, such as visual sales material, displays, etc., through specific professional design and development team units.

### Project Profile

(a) The Team Composition - The design and development team is to consist of an industrial designer, a production engineer, a marketing specialist and professional specialist as the particular case may demand (psychologist, sociologist, medical expert, or other).

In view of the sizeable number of company projects and the diversity of projects involved, it may become necessary to establish perhaps three or more teams.

(b) Funding - Agreement in principle on the viability of the project and the funding on a 50/50 basis has been reached with the Office of Design, Dept. of Industry, Trade and Commerce.

A total project cost figure of \$200,000.00 has been tentatively established.

Assuming an average cost per project of \$10,000.00 this would allow us to include 20 companies in the program.

(c) Work Base - The MDI would assume the responsibility for providing space and supporting facilities to the project team units. Any other technical and logistic assistance would be forthcoming as well.

MDI staff will make the selection of participating companies and carry out all preparatory work necessary for the execution of the project.

(d) Liaison with Industry, Trade & Commerce

The project will be a joint effort between the MDI and the Office of Design, Department of Industry, Trade and Commerce.

Some format of ongoing liaison and cooperation will have to be established. This should include the selection of professional design, engineering and other consulting input. The diversity of projects would dictate the necessity of forming perhaps three or four team units.

One aspect which requires discussion is whether we should form the teams at the outset or place the onus on the industrial designer and have him state specific requirements for each case project.

As the program is initiated and put on stream it would be advisable to appoint a staff member of the Office of Design for continuing liaison until the projects have been completed.

Project Scope

(a) Selection of Companies

The selection of companies should be along criteria which take into consideration

- their present state of product design and quality,
- other "problem" areas such as production, marketing, distribution, etc.,
- their growth potential, particularly as international markets are concerned,
- a representative mix of industry sectors,



- emphasis on small scale manufacturing operations,
- a fair proportion of enterprises located in rural Manitoba.

(b) Parameters

The first object of the team unit would be to concentrate on the existing line of products, assessing their design, quality, marketability, process of manufacture and the existing scope of sales and distribution.

Secondly, but definitely not with less emphasis, the team unit would focus on new product development potentials.

In every case, the individual company project would encompass a total contribution and input in terms of product design and development, specification of manufacturing process and method and a comprehensive guideline for marketing and distribution programs.

(c) Time Elements

Each individual project within the total framework of the program will, of course, require different amounts of input, different emphases in terms of design, production and marketing, and length of time to complete it.

Potential Project Benefits

The scarcity of industrial design and product development activity evident in Manitoba is attributable to a large extent to lack of awareness of its potential benefits.

However, to a substantial degree this ignorance or lack of awareness is being corrected through Product Review Boards and the Design Management Centre program at the University of Manitoba.

In our opinion, even if a manufacturer is reasonably enlightened on the value of industrial design, there still remains the obstacle of understanding the method for organizing and implementing the innovative design and development process into his company structure and organization.

In addition, the small scale manufacturer is adverse to setting aside budget dollars for this facet of his enterprise. Some may even lack this capital for engaging professional design services.

The Design Management Development Program, as outlined above, will have far reaching consequences and will greatly contribute towards achieving the following results:

- Foster selectivity in the choice of product lines suitable for manufacture by relatively small establishments resulting in efficiency in the production and business operations of these establishments,
- Establish firmly design management in the companies participating in this effort with all the implicit benefits resulting from integrating such modern concept into their managerial structure,
- The competitive position of the companies will be strengthened considerably through diversification of product lines and enhancement of their marketability,
- Innovative and imaginative management will hopefully emerge and become developed to the extent that they will more effectively prove themselves and grow into medium or perhaps even large-scale operations,
- New employment opportunities will be created on a higher wage scale because the productivity will be increased. This is particularly important in an economic sector which is known to be increasing employment at a decreasing rate of increase in the past. By the same token, employment creation in this secondary sector will have a definite effect on creating additional jobs in the tertiary or service industry sector,
- A more decentralized pattern of industrial growth, in terms of geography, will contribute to regional Manitoba development. The selected types of industry are suited to decentralized development and can form the basis for measures to guide and reinforce growth of such industries in regional Manitoba areas,
- It will help to preserve an "open economy" with an active tradition of independent initiative by alert individuals and a strong middle class which is an important underpinning for political democracy,

- The project, if successful, would become an example of positive government leadership and illustrate a positive cooperative effort on the part of the Federal and the Manitoba governments.



Design Management Development Program

Tentative List of Potential Participants, Stratified by Location

Selectone Industries,	Winnipeg
Coldstream Products	Winnipeg
Inter-City Manufacturing	Winnipeg
Garnet Amplifiers Ltd.	Winnipeg
Controlled Environments Ltd.	Winnipeg
Quality Bed Co.	Winnipeg
Westnofa of Canada Ltd.	Winnipeg
Dawn Plastics Ltd.	Winnipeg
Prasco Ltd.	Winnipeg
Canadian Anglo Machinery	Winnipeg
Kendon Manufacturing Co.	Winnipeg
Matthews Industries Ltd.	Dauphin
Parkland Plastics Ltd.	Dauphin
Fulcon Industries Ltd.	Roblin
Edson Industries Ltd.	Neepawa
Barkman Concrete	Steinbach
Farm King Ltd.	Morden
Beachcomber Manufacturing Co.	Winkler
Fiberlex Ltd.	Rivers
Mancana Industries Ltd.	Killarney
Inventronics Ltd.	Brandon

Design Management Development Program

Tentative List of Potential Participants, Stratified by Industry

Electrical & Electronics

Selectone Industries	Winnipeg
Garnet Amplifiers	Winnipeg
Inventronics Ltd.	Brandon

Recreational and Leisure Products

Matthews Industries	Dauphin
Parkland Plastics Ltd.	Dauphin
Edson Industries Ltd.	Neepawa
Beachcomber Mfg.	Winkler
Fiberlex Ltd.	Rivers
Mancana Industries	Killarney

Machinery & Equipment

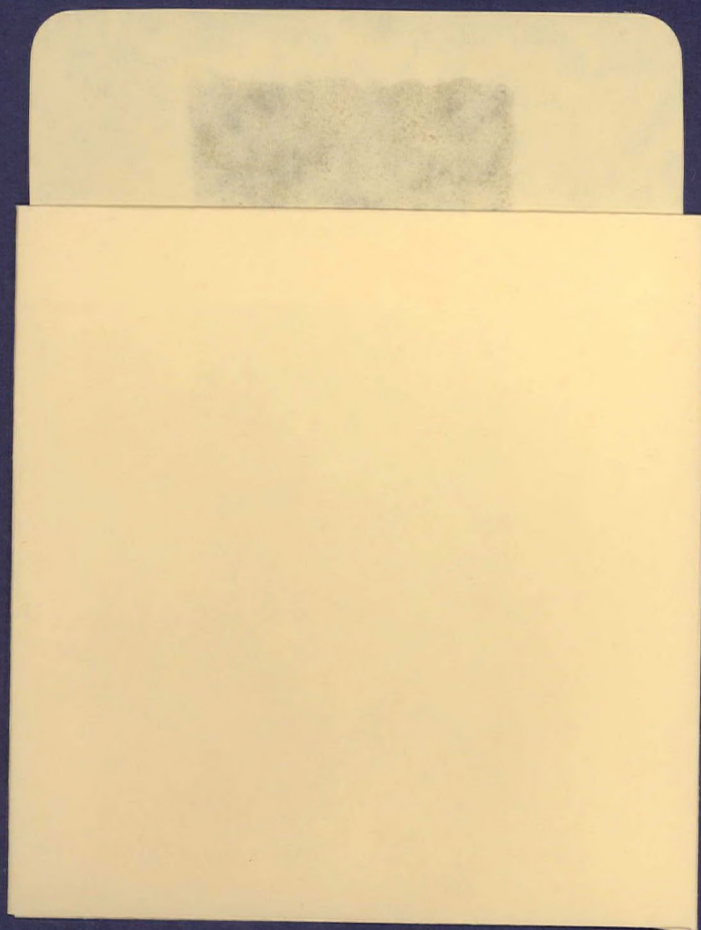
Coldstream Products	Winnipeg
Inter-City Mfg. Co.	Winnipeg
Controlled Environments Ltd.	Winnipeg
Prasco Ltd.	Winnipeg
Canadian Anglo Machinery	Winnipeg
Kendon Manufacturing Co.	Winnipeg
Dalman Enterprises	Killarney
Big "M" Manufacturing	Neepawa
Farm King Ltd.	Morden

Furniture

Quality Bed Company	Winnipeg
Westnofa of Canada	Winnipeg
Phil Weiss Ltd.	Winnipeg
Dawn Plastics Ltd.	Winnipeg

Other

Barkman Concrete Ltd.	Steinbach
Fulcon Industries Ltd.	Roblin



INDUSTRY CANADA/INDUSTRIE CANADA



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