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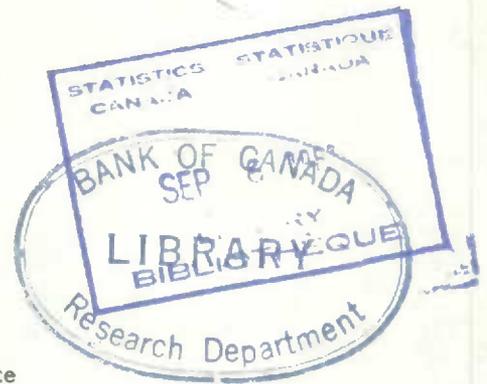
COMMERCIAL REFRIGERATION AND AIR CONDITIONING EQUIPMENT MANUFACTURERS

1960

First issue. Formerly part of
42-208—The Machinery Industry
which has been discontinued.

ANNUAL CENSUS OF MANUFACTURES

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SYMBOLS

The interpretation of the symbols used in the tables throughout this publication is as follows:

- .. figures not available.
- ... figures not appropriate or not applicable.
- nil or zero.



EXPLANATORY NOTES

This report is one in a series of about 140 publications which present the results of the 1960 Census of Manufactures. Most reports in this series refer to specific industries, but there are summary reports for Canada and the provinces and for major industry groups. Adoption of the revised Standard Industrial Classification for 1960 compilations has necessitated changes in titles of many reports in this annual series. The content of many industries has also been affected (see following note on Industrial Classification).

Industry statistics given in these reports refer to number of establishments, employees, salaries and wages, cost of materials, supplies, fuel and electricity, gross value of shipments, inventories and value added by manufacturing. Details of materials used and products shipped are also given. Descriptions of the principal industry statistics, with special reference to 1960 are as follows:

Period Covered

Firms are asked to submit figures for the calendar year, if at all possible, and most reports are on this basis. Financial year reports for periods differing from the calendar year are accepted in instances where the firms find it impossible to supply calendar year data from accounting records. However the data on employees, salaries and wages are requested on a calendar year basis in all cases.

Establishment

Data for the annual census is collected on an establishment basis. A firm with more than one plant is required to file a report for each plant. In most cases an establishment is a complete factory; sometimes, however, a plant is divided into two or more establishments when it carries out operations classifiable to different industries and when separate accounting records are available. Usually the statistics for an establishment relate only to the manufacturing activities. Other activities such as construction at the plant by its own employees, wholesale or retail activities carried on at the plant location, etc., are not included. Plants engaged solely in repair work (except in the case of furniture, shipbuilding, boat building, aircraft and railway rolling stock industries) are not included but plants occupied in assembling parts into complete units are included.

Employees

Administrative and office employees include all executives and supervisory officials such as presidents, vice-presidents, secretaries, treasurers, etc., together with managers, professional and technical employees, superintendents and factory supervisors above the working foremen level, and clerical employees. Working owners and partners are also included in this category.

Production and related workers include all other factory workmen whether paid on a monthly, weekly, hourly or piece-work basis. Working foremen doing work similar to that of the employees they supervise are included, as are maintenance, ware-

housing and delivery staffs. Employees on new construction work, in retail or wholesale operations, on outside piece work etc. are not included.

Production workers are reported by months, an average for the year being obtained by summing the monthly figures and dividing by twelve. This procedure is followed even though the plant did not operate in all months. Figures on employment refer to calendar years whether or not some establishments reported other data on a financial year basis.

Salaries and Wages

Salaries and wages refer to gross earnings of the employees described above, including salaries, wages, commissions, bonuses, the value of room and board where provided, deductions for income tax and social services such as sickness and unemployment insurance, pensions, etc., as well as any other allowances forming part of the employees' wages. Payments for overtime are included.

Salaries refer to amounts paid to administrative and office employees. Withdrawals by working owners or partners for normal living expenses for self and family are included but not their withdrawals for income tax. Wages refer to the amounts paid to production and related workers as defined above. Data on earnings refer to the calendar year whether or not some establishments reported other data on a financial year basis.

Cost of Fuel and Electricity

Figures for fuel refer to amounts actually used, (including fuel used in cars and trucks), not to purchases unless the quantities are the same. Values refer to the laid-down cost at the works, including freight, duty, etc.

Materials and Supplies Used

Figures represent quantities and laid-down cost values, at the works, of materials and supplies actually used during the year whether purchased from others or received as transfers from other plants of the reporting company. Amounts paid to other manufacturers for work done on materials owned by the reporting company are included. Returnable containers or any other items charged to capital account are not included. Fuels are not included. Goods bought from others or received as transfers from other plants or reporting companies for resale without further processing are not included. Maintenance and repair supplies not chargeable to capital account are included.

Factory Shipments

Factory shipments refer to shipments of goods made from own materials either in the reporting plant or by other manufacturers on the basis of a charge to the reporting plant for work done. All products and by-products shipped from the establishment are included whether for domestic use, export, or for government departments. Transfer shipments to sales outlets, distributing warehouses or to other manufacturing units of the reporting firm are included. Goods bought or received as transfers

and resold without further processing are not included. Values are computed on f.o.b. plant or plant warehouse basis, and do not include sales tax or excise duties. Values of containers not returnable are included. Amounts received in payment for work done on materials owned by others are included.

In a few industries such as shipbuilding, aircraft, etc., where work on principal products extend over a relatively long period, the value of production is recorded rather than the value of shipments. For those industries production is computed from the value of deliveries of complete units during the year plus the value of work done during the year on unfinished units less the value of work done in previous years on finished units delivered in the year under review.

Inventories

Values represent the book values of manufacturing inventories owned and held at the reporting plant. Figures include inventories held in warehouses or selling outlets which have been included with plant operations for purposes of reporting shipments.

Value added by Manufacturing

Figures are computed from value of shipments plus or minus changes in inventories of finished goods and goods in process less cost of materials, fuel and electricity. This figure is sometimes referred to as net production.¹

Standard Industrial Classification

The revised Standard Industrial Classification which has been introduced with the 1960 Census of Manufactures provides for a breakdown of the universe into 140 industries arranged in 20 major groups compared with 135 industries in 17 major groups in the old classification which was used in the compilations for the years 1949 to 1959 inclusive. It incorporates changes considered desirable on the basis of experience in using the earlier classification as well as those which take account of changes in the structure of Canadian industries associated with the rapid developments of the past decade. Full details are contained in the Standard Industrial Classification Manual, Catalogue No. 12-501, which is available from either the Queen's Printer or the Dominion Bureau of Statistics. Reporting establishments are classified or allotted to specific industries on the basis of the value of principal products made or shipped.

Many industries remain unchanged in the new classification but in many instances there have been substantial changes in content because of the shifting of establishments from one industry to another or in re-grouping of establishments. Where

¹ To arrive at the National Accounts concept of "gross domestic product at factor cost", it would be necessary to subtract also the cost of office supplies used, advertising, insurance and other goods and services obtained from other businesses. Data on these inputs are not collected on the annual Census of Manufactures. Value added figures for "The primary industries and construction" are published in D.B.S. publication 61-202, *Survey of Production*.

changes have occurred the principal statistics for 1957, 1958 and 1959 have been re-compiled to provide data on a basis comparable with those for 1960.

Short Forms

Between 1949 and 1957, in an effort to ease the reporting burden for smaller firms, a short form was used asking for the total value of shipments only or, in a few cases where losses of detail were significant, for quantities and values of principal products. For purposes of publication, missing data were estimated on the basis of appropriate ratios. In general the cut-off point for these short forms was set at \$50,000 value of shipments. About 40% of the total number of establishments reported on the short form and accounted for less than 3 per cent of the total value of shipments.

In 1958, in order to establish a new base year, the small firms were asked to report all items of principal statistics together with some detail on materials and products.

For the 1959 Census, the short form was used again, but further steps were taken to ease the respondents' burden. First, the general limit for short forms was raised to \$100,000 value of shipments. In addition, a new intermediate form was developed. This form is a shortened version of the long form in that most of the general questions were pared down and the detailed lists of materials and products were limited to the more important items. The general limits for firms in this category were set at between \$100,000-\$500,000 value of shipments, but in the case of both the short and intermediate forms there were lower cut-offs for a number of industries in which the smaller firms accounted for a larger share of total shipments. On the other hand, limits were raised where this could be done without a significant loss of coverage. On most of the short forms for 1959, in addition to total value of shipments, data on principal products were requested. In a few industries, where loss of employment and earnings data were considered too large because of higher cut-offs, a question on total payroll was placed on the short form. This practice was followed again in 1960.

The intermediate and long forms provide complete data for the compilation of all elements of principal industry statistics and the details of materials and products. The one-page short form, although containing data on principal products and total value of shipments, does not request information on other elements of principal statistics such as value of inventories, materials, fuel and electricity and, in most cases, employment and salaries and wages, nor does it contain detailed data on volume and value of materials used. For purposes of compiling aggregates of principal statistics by industry and by geographic location, the missing data for each establishment were estimated for 1959 by using, in general, ratios based on the change in the value of shipments between 1958 and 1959. The proportion of the estimated data was generally less than 5 per cent of the total in each category of principal statistics.

COMMERCIAL REFRIGERATION AND AIR CONDITIONING EQUIPMENT MANUFACTURERS

1960

Data for 1960 presented in this report reflect implementation of the revised Standard Industrial Classification (S.I.C.) which is being used by the Dominion Bureau of Statistics in its compilation of 1960 industry statistics—see item "Standard Industrial Classification" in the Explanatory Notes section of this report. The present report constitutes the first in this series for Commercial Refrigeration and Air Conditioning Equipment Manufacturers. For statistical purposes the industry titled Commercial Refrigeration and Air Conditioning Equipment Manufacturers in the revised Standard Industrial Classification covers the operations of establishments primarily engaged in manufacturing electric and non-electric commercial refrigeration equipment such as display cases, counters and frozen food storage cabinets; and refrigeration units for installation in custom or built-in refrigeration facilities. The industry also includes establishments primarily engaged in manufacturing self-contained air conditioning units (except window type) and air conditioning equipment for installation in custom and built-in air conditioning systems.

In many instances adoption of the new Standard Industrial Classification effected a radical shifting of manufacturing establishments as between industry groupings and the establishment of new industries as in the case of Commercial Refrigeration and Air Conditioning Equipment Manufacturers. This new industry is comprised of those establishments previously forming a major component of the old S.I.C. industry "The Machinery Industry". In order to provide a statistical comparison an attempt has been made to recompile 1957, 1958 and 1959 data on the revised Standard Industrial Classification basis. Figures on this basis are shown in Table 1.

There were 33 establishments classified as Commercial Refrigeration and Air Conditioning Equipment Manufacturers in 1960, there being 1 in New Brunswick, 7 in Quebec, 20 in Ontario, 3 in Manitoba and 2 in British Columbia. Employees in this industry totalled 1,601; materials used in the manufacturing processes cost \$9,723,870; and factory shipments were valued at \$22,633,244.

The establishments in this industry make commercial refrigeration and air conditioning equipment as their main products. On the other hand some companies which have been classified to other industries make commercial refrigeration and air conditioning equipment as a secondary part of their business. Tables 1 to 4 and 6 to 10 of this report refer only to Commercial Refrigeration and Air Conditioning Equipment Manufacturers which includes those firms reporting these lines as their main products. Small quantities of these commodities were also made by companies which have been classified to other industrial groups. Table 5 represents total factory shipments of Commercial Refrigeration and Air Conditioning Equipment from all industries.

TABLE 1. Principal Statistics, Commercial Refrigeration and Air Conditioning Equipment Manufacturers, by Provinces, 1957-60

Basis: Standard Industrial Classification, revised 1960

	Estab- lish- ments	Em- ployees	Salaries and wages	Cost of fuel and electricity at plant	Cost at plant of materials used	Value added by manufacture ¹	Value of factory shipments
	number				dollars		
1957							
New Brunswick	1	210	726,068	28,232	1,058,680		2,097,902
Quebec	9						
Ontario	15	1,074	4,119,497	151,235	5,855,803		13,784,726
Manitoba.....	2	154	529,368	18,399	644,058	2	1,745,771
British Columbia.....	2						
Canada	29	1,438	5,374,933	197,866	7,558,541		17,628,399
1958							
New Brunswick	1	188	702,660	32,849	748,002		1,609,920
Quebec	7						
Ontario	16	1,079	4,425,967	178,678	6,115,325		14,523,150
Manitoba.....	3	123	491,897	16,574	847,698	2	1,680,598
British Columbia.....	2						
Canada	29	1,390	5,620,524	228,101	7,711,025		17,813,668
1959							
New Brunswick	1	143	562,814	29,192	831,186		1,717,861
Quebec	7						
Ontario	17	1,142	4,826,580	190,044	7,241,793		16,838,346
Manitoba.....	3	180	790,306	27,249	1,086,808	2	2,272,337
British Columbia.....	2						
Canada	30	1,465	6,179,700	246,485	9,159,787		20,828,544
1960							
New Brunswick	1	176	690,958	47,530	1,062,132	1,226,619	2,188,812
Quebec	7						
Ontario	20	1,286	5,487,710	232,829	7,863,447	10,851,813	18,537,730
Manitoba.....	3	139	567,627	22,321	798,291	983,929	1,906,702
British Columbia.....	2						
Canada	33	1,601	6,746,295	302,680	9,723,870	13,062,361	22,633,244

¹ Figures for 1960 do not include any adjustments for goods in process inventory held under progress payments arrangements.

² The changeover to the new classification has delayed the re-compilation of "Value added" figures for these years and same will not be available until the next issue of this report.

TABLE 4. Materials Used: Commercial Refrigeration and Air Conditioning Equipment Manufacturers, 1960 - Concluded

Material	Quantity	Cost at plant
		\$
Non-ferrous metals in all forms:		
Aluminum - Castings	lb. 20,653	5,491
Pipe and tubing	" 109,000	59,924
Sheet	" 926,229	391,910
Other forms	" 953,385	465,332
Brass and bronze	" 300	149
Copper - Pipe and tubing	" 1,447,443	965,289
Sheet	" 46,010	24,455
Wire	" 300	176
Other forms	" 105,391	30,673
Lead	" 6,632	1,452
Zinc	" 4,556	1,830
Babbitt metal and solders	" 40	28
Other materials and supplies:		
Paints and varnishes		130,147
Plywood	M sq. ft. 208	34,893
Lumber	M bd. ft. 1,500	174,216
Compressor units	No. 1,484	648,610
Condensing units	" 532	85,400
Electric motors - Less than 1 h.p.	" 18,166	162,194
1 h.p. and over	" 754	73,953
All other materials ¹	-	4,176,440
Containers and other packaging materials or supplies		222,057
Total	-	9,723,870

¹ No detailed information on materials used was collected from firms generally reporting value of shipments of less than \$200,000. The total value of materials used by these firms was \$1,309,651 and this amount is included in "all other materials".

TABLE 5. Factory Shipments of Commercial Refrigeration and Air Conditioning Equipment, 1960 (from All Industries)

Item	Quantity shipped	Value of factory shipments
	number	\$
Room air conditioners - Window sill type	7,102	985,300
Room air conditioners, self-contained, except window sill type	1,179	1,403,706
Other air conditioning units (includes units for location below windows, all other not self-contained, and packaged air conditioners excluding household)	13,272	1,732,123
Ice cream cabinets, non-display	918	328,284
Frozen food cabinets, commercial	2,450	1,830,425
Display cases, refrigerated, other	3,249	2,718,587
Commercial refrigerators, including reach-in and walk-in types, self-contained and remote	1,613	1,923,130
Heat transfer coils	8,760	1,430,713
Unit coolers, floor and wall mounted	991,608
Compressor units	1,824	819,887
Condensing units, reciprocating (refrigeration)	958	562,282
Evaporative condensers, all types (refrigeration)	73,188	1,124,432
Condensers, air or water cooled	2,311	1,106,733
Refrigeration and air conditioning equipment, other, and parts		11,612,267
Total		28,569,477

Note: For details on household refrigerators and freezers see bulletin Manufacturers of Major Appliances, Catalogue No. 43-204.

TABLE 6. Principal Statistics classified according to Type of Ownership: Commercial Refrigeration and Air Conditioning Equipment Manufacturers, 1957 and 1960

Type	Estab-lish-ments	Employees	Salaries and wages	Cost at plant of materials used	Value of factory shipments
		number	dollars		
1957					
Individual ownership	3	87	389,194	422,649	888,839
Partnerships	2				
Incorporated companies	24	1,351	5,005,739	7,135,892	16,739,560
Totals	29	1,438	5,374,933	7,558,541	17,628,399
1960					
Individual ownership	3	124	561,599	471,900	1,297,014
Partnerships	2				
Incorporated companies	28	1,477	8,184,698	9,251,970	21,338,230
Totals	33	1,601	6,746,295	9,723,870	22,633,244

TABLE 7. Principal Statistics grouped according to Selling Value of Factory Shipments: Commercial Refrigeration and Air Conditioning Equipment Manufacturers, 1957 and 1960

Establishments reporting factory shipments	Estab-lish-ments	Employees	Salaries and wages	Cost at plant of materials used	Value of factory shipments
		number	dollars		
1957					
Under \$10,000	1	58	150,009	146,287	361,713
\$ 25,000 to \$ 49,999	2				
50,000 " 99,999	4	85	309,785	328,913	797,821
100,000 " 199,999	6				
200,000 " 499,999	5	177	834,848	983,940	1,737,433
500,000 " 999,999	5	275	1,095,464	1,382,508	3,470,288
1,000,000 " 4,999,999	8	843	3,185,029	4,738,895	11,281,144
Totals	29	1,438	5,374,933	7,558,541	17,628,399
1960					
\$ 25,000 to \$ 49,999	4	33	101,701	104,398	226,102
50,000 " 99,999	1				
100,000 " 199,999	6	89	250,498	492,816	917,537
200,000 " 499,999	9	239	951,834	1,332,563	2,657,956
500,000 " 999,999	8	440	1,953,978	2,500,741	5,858,227
1,000,000 " 4,999,999	5	820	3,488,286	5,293,554	12,973,422
Totals	33	1,601	6,746,295	9,723,870	22,633,244

TABLE 8. Employees and their Earnings: Commercial Refrigeration and Air Conditioning Equipment Manufacturers, 1959 and 1960

Province	Number of employees				Total	Earnings		
	Supervisory and office		Production workers			Supervisory and office	Production workers	Total
	Male	Female	Male	Female				
		number				dollars		
1959								
Quebec	28	9	89	2	128	191,974	329,783	521,737
Ontario	249	84	802	7	1,142	1,739,165	3,087,415	4,826,580
Other provinces	22	8	185	—	195	130,742	700,841	831,383
Totals	299	101	1,056	9	1,465	2,061,881	4,117,819	6,179,700
1960								
Quebec	36	11	108	2	157	252,575	390,351	642,928
Ontario	276	95	899	18	1,288	1,981,800	3,505,910	5,487,710
Other provinces	20	5	133	—	158	112,433	503,226	815,859
Totals	332	111	1,140	18	1,601	2,346,808	4,399,487	6,746,295

TABLE 9. Production Workers, by Months: Commercial Refrigeration and Air Conditioning Equipment Manufacturers, 1960

Month	Establishments reporting monthly detail ¹	
	Male	Female
	number	
January	978	10
February	971	12
March	989	14
April	1,010	20
May	924	18
June	970	20
July	966	18
August	953	18
September	938	14
October	970	12
November	898	13
December	847	13
Average for establishments reporting monthly detail	951	15
Average estimated for small establishments ²	185	2
Average for all establishments	1,136	17

¹ The number of production workers, by months, was collected only for establishments generally reporting value of shipments of \$200,000 and over.

² For establishments generally reporting value of shipments of less than \$200,000, no data on number of workers were collected. Average was estimated by using change in value of shipments to arrive at value of payroll which was then used in conjunction with estimated average earnings to arrive at number of workers.

TABLE 10. Fuel and Electricity Used: Commercial Refrigeration and Air Conditioning Equipment Manufacturers, 1960

Kind	Quantity	Cost at works
		\$
1. Establishments reporting commodity detail: ¹		
Bituminous coal - Imported	ton 350	4,100
Gasoline (including gasoline used in cars and trucks)	Imp. gal. 40,399	14,944
Fuel oil including kerosene and coal oil	" 714,037	86,904
Gas:		
(a) Liquefied petroleum gases	" 7,311	1,875
(b) Natural gas	M cu. ft. 18,389	20,486
Other fuel	32
Electricity purchased	kwh. 7,260,307	114,337
2. Estimate for establishments for which no data were collected: ²		
Cost of fuel and electricity	60,002
3. All establishments:		
Total cost of fuel and electricity	302,680

¹ Establishments generally reporting value of shipments of \$200,000 and over.

² Establishments generally reporting value of shipments of less than \$200,000.

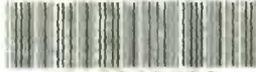
TABLE 11. Imports and Exports of Sepcified Types of Commercial Refrigeration and Air Conditioning Equipment, 1959 and 1960

Item	1959		1960	
	Quantity	Value	Quantity	Value
		\$		\$
Imports				
Ice making and refrigerating machinery n.o.p., and parts.....	-	9,704,390	-	11,499,332
Air conditioning apparatus and parts, including blowers and ventilating machinery n.o.p.	-	11,323,031	-	11,979,485
Air conditioners, room size, and parts	16,522	1,820,208	40,965	4,587,404
Exports				
Ice making and refrigerating machinery and parts	-	55,182	-	484,598

Directory of Firms: Commercial Refrigeration and Air Conditioning Equipment Manufacturers, 1960

Name of firm	Location of plant
New Brunswick:	
Sussex Refrigeration Mfg., Co., Ltd.	Sussex
Quebec:	
Blanchard Industries Co.	7779 Casgrain Ave., Montréal
Canada's Best Refrigeration Equipment	8607 Notre Dame St. East, Montréal
Canadian Super Cold Limited	349 Broadway Ave., Montréal East
Colsan Limited	636 St. Paul St. West, Montréal
Fabien, C.P., Limited	2471 Ste. Cunegonde, Montréal
Farr Manufacturing Co., Limited	390 des Lauriers St., Saint Laurent, Montréal 9
Gauvin Incorporated	220 rue Lee, Quebec 2
Ontario:	
Aerofin Corporation (Canada) Limited	Bath Road & Day Road, Kingston
Air Coils Manufacturing Co., Limited	346 Wycroft Road, Oakville
Canada Vulcanizer & Equipment Co., Limited	Clarke Side Road, London
Canadian Curtis Refrigeration Co., Limited	20 George St., Hamilton
Canadian Ice Machine Co., Limited	65 Villiers St., Toronto
Canadian Tyler Refrigeration Ltd.	Highway #2, Tilbury
Carrier Air Conditioning (Canada) Ltd.	70 Queen Elizabeth Blvd., Toronto
Coldmatic Refrigeration Company	425 Enfield Road, Aldershot
Frozenaire Cooler Company, Limited	Glenridge Avenue, St. Catharines
Heavy Duty Products (Preston) Limited	635 Laurel St., Preston
Hill, C.V., of Canada Limited	200 Brock St., Barrie
Hussmann Refrigerator Co., Limited	58 Frank St., Brantford
Ideal Venders Limited	127 Main St., Deseronto
Keep Rite Products Limited	44 Elgin St., Brantford
Kenmore Machine Products (Canada), Ltd.	Durham Road, R.R. #2, Grimsby
Milner, The Edward, Co., Limited	311 Pharmacy Avenue, Scarborough
Northern Eureka Refrigerator Co., Ltd.	1552 Weston Road, Weston
Ontario Refrigeration Enterprises Ltd.	6501 Kingston Road, West Hill
Rapid Refrigeration Mfg., Co., Ltd.	155 George St., Toronto
Universal Cooler Company, Limited	Patterson Road, Barrie
Manitoba:	
Bell Refrigerator Co., Limited	1760 Sargent Ave., St. James 21
Coldstream Refrigerator Mfg., Ltd.	1855 Sargent Ave., St. James 21
Polar Equipment Co., Limited	467 Provencher Ave., St. Boniface
British Columbia:	
Gair, Alex, & Sons	955 East Hastings St., Vancouver 4
Leader's Pacific Limited	Lougheed Highway & Leader Drive, New Westminster

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