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QUÉBEC AEROSPACE 1987



Canada

Québec

QUÉBEC TECHNOLOGICAL AEROSPACE
CAPABILITIES

QUÉBEC AEROSPACE 1987

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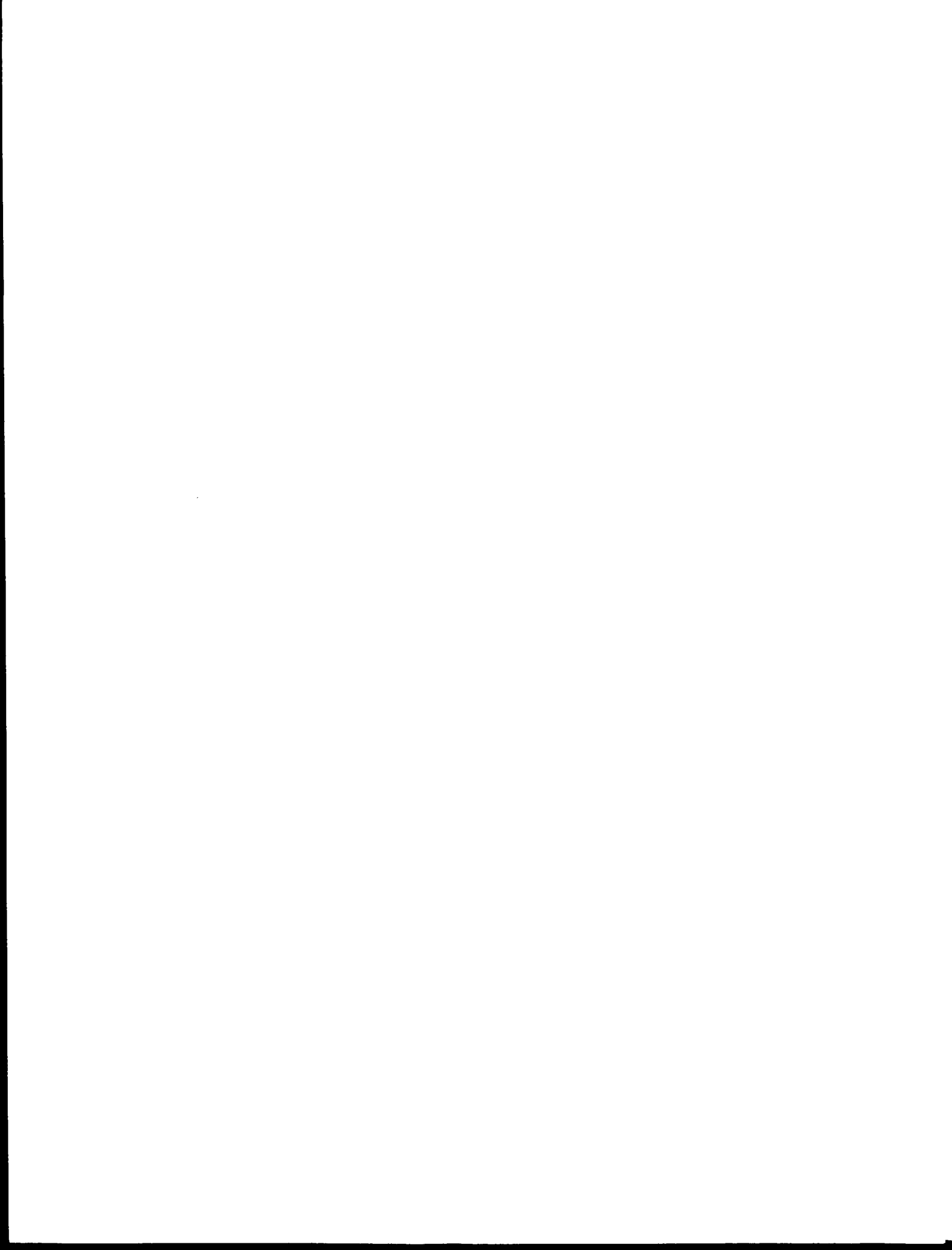
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QUÉBEC: WORLD-CLASS AEROSPACE CAPABILITIES

The Québec aerospace manufacturing industry has an outstanding range of capabilities, from research, design and development to testing and production of sophisticated hardware and systems. Québec's expertise also covers product support, field service and in-plant repair and overhaul of aircraft, engines and components. From satellites to air and ground-based avionics systems, there is little that the Québec aerospace industry cannot do.

It is a dynamic and technologically advanced industry which, through specialization, has developed products that fly on hundreds of different aircraft worldwide.

Québec is home to over 125 manufacturers of aircraft components, systems, sub-assemblies and accessories. They supply items such as electronic sub-systems, fuel control systems, wiring, structural elements, landing gear, communications systems, safety systems, navigation equipment, temperature control systems, aircraft interior finishing, hydraulic systems and control systems.

These companies have in common an ability to meet on time the exacting quality standards associated with aerospace products.

They employ over 24,000 people and in just four years, from 1982 to 1986, their sales more than doubled. Actual sales of more than \$2.1 billion in 1986 are forecast to climb to over \$3.5 billion (1987 dollars) in four years. The industry is an important Canadian exporter of advanced technology products and services: fully 80 percent of its total sales in 1986 were exported.

A golden opportunity for procurement specialists

Nowhere is the old slogan "Purchasing Makes Money" more appropriate than in the aerospace sector.

The successful buyer is always looking for new qualified sources capable of delivering quality products on time and at the best possible price.

Québec Aerospace 1987 will introduce you to a remarkable group of such suppliers, about one hundred and twenty-five in fact, who offer the complete spectrum of aerospace products and services. Several of them will be familiar to you; others may not. Therein lies an opportunity for the astute buyer to build up his or her pool of qualified sources.

Québec Aerospace 1987 will be periodically updated. To ensure that you receive the amendments as well as to order additional copies write to:

Government of Canada
Department of Regional Industrial
Expansion
800, Victoria Square, Suite 3800
P.O. Box 247
Montréal, Québec
H4Z 1E8
Attn: Sector Manager, Aerospace products,
Transportation
Equipment and Metal products Industries

Government of Québec
Ministry of Industry and Commerce
770, Sherbrooke Street West
Montréal, Québec
H3A 1G1
Attn: Sector Manager,
Aerospace and Defense products
Transportation Industries Branch

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A.W.S.M. ENTERPRISES LTD

A Division of Avcorp Industries Inc.

3905, Leman Blvd
Laval, Québec
H7E 4V7

Contact: Raymond Déry, President
Gilles Lahaise, Marketing Director
Telephone: (514) 661-9140
Telex: 05-25624 (AWSM VDL)
Fax: (514) 324-6241

Company founded in 1951

Capabilities

A.W.S.M. Enterprises Ltd is equipped to satisfy the needs of the Commercial and Military field activities, more precisely the Aerospace and the Navy. A.W.S.M. produces detailed parts as well as complete systems. Ex.: Machined parts, sheet metal details, stamping, airframe sub-assemblies (dimpling-riveting-etc.), production tooling (templates-dies-fixtures-etc.), military welding (fusion and resistance) on aluminium, carbon steel, stainless steel, exotic materials (inconel-incolloy-hastalloy-etc.). Products include:

Aircraft Ground Support Equipment, Ejector Seats (F-5), Maintenance Tooling (F-18), Crew Seats, Metal Engine Containers (F-104/F-5/F-18 etc.). Repair and Overhaul on Turbine Engine Parts for many airlines and manufacturers of Aircraft Engines. FOR SHIPS: Watertight and Firetight Doors and Hatches, Mooring Equipment, Acoustic Turbine Enclosures, etc.

Quality Standards

DND: AQAP-1, AQAP-4

MIL: I-45208 and Q-9858A

Others: CSA-Z-299.3 — Lloyd's, Veritas, Det Norske Veritas, Department of Transport Canada (D.O.T.)

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

Smart Cam / Point Control Co.

Numerical Control Machine Tools

CNC — OKK 500

Hardinge 1 1/16" Dia. Bore Cap. Chucker

Toss 3 1/8" Dia. Bore Cap. Chucker

Conventional Machinery

Turning (Lathe)	5	Profiling	1
Milling	8	Drilling	4
Honing	1	Surface Grinding	1

Major Clients

D.S.S. Canada

U.S. Air Force (Warner Robins)

N.S.P.C.C. (United States Navy)

Canadair Ltd

Rolls-Royce Ltd

Pratt & Whitney

Boeing of Canada

Dowty

General Electric (Engine Division)

U.S.A.

E.E.L. (Division of Westland

Aerospace) England

Morse Controls Ltd England

Velle Systemer A/S Norway

All the major shipyards in Canada

Employees (1986) Total: 68

Engs. & Tech.: 8

Shop personnel: 51

Admin.: 7

Total Sales(1986) From \$1.5 to \$5 million

Plant Size 40,000 Sq. Ft.

1

2

4

AERO MACHINING LTD



5411, Industriel Blvd
Montréal North, Québec
H1G 3H7

Contact: Raoul Saulnier, President
Bruno Julien, Marketing Dir.
Telephone: (514) 324-4260

Company founded in 1963

Capabilities

The company is a leading supplier to the aerospace industry with the manufacture of HYDRAULIC ACTUATORS for the DC-9, TITANIUM FLAP TRACKS for the DC-10, AIRCRAFT HINGES for the CF-5, CF-104, Canadair's Challenger & Grumman. Aero Machining has progressed from conventional machinery to automatic, to NC, to CNC equipment and has implemented a full CAD/CAM system.

Quality Standards

DND: AQAP-4, AQAP-9
MIL: 9858A, 45208A, 45662A
Others: Z299-2

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

Auto-Trol Series 7000 (Full CAD/CAM with graphic Video)

Numerical Control Machine Tools

1 Okuma LC40 Lathe 2 Axes
2 Okuma LB15 Lathe 2 Axes
1 Okuma MC5VA Machining Center 4 Axes
1 Okuma MC3VA Machining Center 3 Axes
1 Okuma MC6VA Machining Center 5 Axes

Other Automated or Specialized Equipment

EX-CEL-O LO3A with GE MP 550 NC 3 Axes
Mitutoyo coordinate measuring machine 14" screen

Conventional Machinery

Lathe	7	Drilling	1
Milling	15	Internal Grinding	3
Honing	2	External Grinding	2
Profiling	11	Surface Grinding	4

Major Clients

Canadair Ltd	Supply and Services Canada	Bell Aerospace
McDonnell Douglas Canada	Rolls Royce Canada	
Douglas Aircraft	C.A.E.	
Pratt & Whitney Canada	Cleveland Pneumatic	
Fleet Industries	Héroux Inc.	

Employees (1986) Total: 47

Engs. & Tech.: 2

Shop personnel: 40

Admin.: 5

Total Sales (1986) From \$1.5 to \$5 million

Plant Size 25,000 Sq. Ft.

AERO-NOVATION INC.

Hangar No. 4
St-Jean Municipal Airport
St-Jean-sur-Richelieu, Québec
J3B 7B5

Contact: A. Slangen, General Manager
Telephone: (514) 347-4215
Telex: 05-831540

Capabilities

Overhaul and rebuilding of aircraft, components, skis and floats.

Quality Standards

Others: M.O.T.

Precision Machinery

Conventional Machinery

Turning (Lathe)
Drilling
Surface Grinding

Major Clients

Canadair Inc.
De Havilland
Pratt & Whitney Canada
Québécair

Quebec Government
Newfoundland Government
Business Express
Air Ontario

Employees (1986) Total: 40

Total Sales(1986) From \$1.5 to \$5 million

Plant Size 32,000 Sq. Ft.

AERO PROPULSION P.T.T. INC.



3645, Ste-Anne Blvd
Beauport, Québec
G1E 3L1

Company founded in 1986

Contact: Paul Smith, President
Paul Grenier, Vice-President
Telephone: (418) 871-5791
Telex: 051-2317
Fax: Pending

Capabilities

Aircraft piston engine overhaul and repair.
Full NDT Line: Liquid Dye Penetrant inspection Unit.
Eddy Current
Ultrasonic Flaw Detector

Quality Standards

Commercial: M.D.T. / F.A.A.

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

Hewlett — Packard HP 9000
Mechanical Design
(3D Solid, ME 30)
NC Tape Generation
Esprit

Conventional Machinery

Turning (Lathe)	1	Drilling	2
Milling	1	Sheet Metal	1
Honing	1	Internal Grinding	2

Major Clients

Air Satellite	PropAir
Super	Roberval
Quebec Aviation	Exact Air

Employees (1986) Total: 7
Engs. & Tech.: 1 Shop personnel: 5 Admin.: 1

Total Sales(1986) Under \$0.5 million

Plant Size 15,000 Sq. Ft.

AEROSPACE WELDING INC.

576, O'Connell
Dorval, Québec
H9P 1E5

Contact: N. DiGenova, President
W. Krampitz, Vice-President
Telephone: (514) 337-0008

Company founded in 1979

Capabilities

Fabrication and repair of aircraft components and ground support equipment. Specializes in the repair and rebuilding of engine exhaust systems, jet engine combustion chambers and associated high temperature components. The company is experienced and qualified in the welding of various alloys used in the aviation industry. The manufacturing repair facilities are Department of Transport approved.

Quality Standards

DND: 5201-562

MIL: MPS

Others: Department of Transport, Canadair Ltd, Pratt & Whitney

Precision Machinery

Conventional Machinery

Lathe	1	Spot Welders	2
Milling	2	Plasma Arc	1
Mig Welders	6	Power Press	2
Arc Welders		Brake Press	2
Shears	2		

Major Clients

Canadair Ltd

Pratt & Whitney Canada

Quebec Air

Austin Airways

Gov't of Quebec

C.P. Air

Air Canada

Employees (1986) Total: 14

Shop personnel: 10

Admin.: 4

Total Sales(1986) Under \$0.5 million

Plant Size 5,000 Sq. Ft.

AIR CANADA



P.O. Box 9000, Montréal, Intl Airport
Dorval, Québec
H4Y 1C2

Company founded in 1937

Contact: Stan Mulvey-Mgr, Customer
Dave O'Neill, Customer Relations
Telephone: (514) 879-7766
Telex: 06-217537

Capabilities

Air Canada's Maintenance & Engineering Branch and main Technical Centre is headquartered at Montreal International Airport (Dorval) Quebec with Line Maintenance facilities and technicians across Canada, in Europe and the Caribbean. Equipped to deal with ground handling services, airframe "C" and "D" Checks, Engine, APU and Component repairs and overhauls and flight support equipment maintenance. Other capabilities are: Maintenance Personnel Training, Material Inventory Management and Flight Operations Training and Technical Services.

Quality Standards

MIL: Able to work to almost all requirements
Others: Transport Canada 6-54 and FAA-FAR 43.17

Precision Machinery

Numerical Control Machine Tools

Full machine and processes shops and specialized tooling and calibration equipment, plasma spray, surmetal application — over 95% self-sufficient for all aspects of commercial aircraft machining and tooling requirements.

Other Automated or Specialized Equipment

Automated test equipment for avionics, pneumatic, hydraulic and fuel units & components, engine test cells and non-destructive test (X-ray and boroscope) equipment.

Conventional Machinery

Turning-milling-boring-honing-profiling-drilling-sheet metal-gear cutting internal grinding-external grinding-surface grinding.

Major Clients

BWIA-Trinidad & Tobago Airways	Air Alaska
Saudi Arabian Airlines	Eastern Air Lines
Air Jamaica	Boeing Aircraft Sales
German Cargo Services	Worldways Canada

Employees (1986) Total: 4,200 Maintenance personnel
Engs. & Tech.: 200 **Shop personnel:** 3,500 **Admin.:** 500

Total Sales (1986) From \$50 to \$100 million

Plant Size 2,500,000 Sq. Ft.

AIR GROUND EQUIPMENT INC.

420, Edouard Street
Granby, Québec
J2G 3Z3

Contact: Jos Schirch, President
Marcel Aubin, Sec.-Treas. and Buyer
Telephone: (514) 378-8107

Company founded in 1963

Capabilities

Precision machine shop. Machining of small gears and clusters, shafts, instruments, small aluminum castings and other precision parts for electrical navigation instruments.

Quality Standards

DND: AQAP-4
MIL: C-45662A

Precision Machinery

Numerical Control Machine Tools

2 Turnex DA-4000-1 Precision Lathe Chucker 2 Axes
Mori-Seiki SL-3B Lathe 2 Axes
OKK MCV-300 Vertical Machining Centre 4 Axes
OKK MCV-410 Vertical Machining Centre 4 Axes
Mitutoyo Co-Ordinate Measuring Machine
Picomm Co-Ordinate Measuring Machine

Conventional Machinery

Turning (Lathe)	6	Gear Cutting	10
Milling	5	Internal Grinding	1
Boring	1	Surface Grinding	1
Honing	1		

Major Clients

GE (Pittsfield)	Canadian Marconi Co.
Simmonds	Menasco
Raytheon Canada	Leigh Instrument Ltd
CAE	Sperry Vickers
Aviation Electric	Bell Helicopter

Employees (1986) **Total:** 20

Engs. & Tech.: 2

Shop personnel: 16

Admin.: 2

Total Sales(1986) From \$1 to \$1.5 million

Plant Size 14,000 Sq. Ft.

AIRBORNE GEAR & MACH. LTD



6205, Couture Blvd
St-Léonard, Québec
H1P 3G7

Contact: Donald Daoust, President
Gaston Latreille, Quality Manager
Telephone: (514) 325-9000

Company founded in 1969

Capabilities

Precision machine shop specialized in the machining of small gears and clusters, shafts, instruments, small aluminum castings and other precision parts for electrical navigation instruments.

Quality Standards

DND: AQAP-1

Precision Machinery

Numerical Control Machine Tools

11 Hardinge CHNC Chucker 2 Axes
2 Ikegai AX-25 Lathe 2 Axes
1 Mori Seiki 1L-38 Lathe

Other Automated or Specialized Equipment

Gundrill — Extrude Hone

Conventional Machinery

Turning (Lathe)	8	Drilling	8
Milling	3	Internal Grinding	1
Honing	1	External Grinding	2
Surface Grinding	1		

Major Clients

Pratt & Whitney Canada
Bendix Avelex Inc.
Rolls-Royce Canada Ltd

Employees (1986) Total: 46

Shop personnel: 42 Admin.: 4

Total Sales (1986) From \$1.5 to \$5 million

Plant Size 15,000 Sq. Ft.

AIRCOM ELECTRONICS LTD

9501, Ryan
Dorval, Québec
H9P 1A2

Contact: R. Lessard
Telephone: (514) 636-3878
Telex: 05-822663

Company founded in 1969

Capabilities

Aircom has operated in Montréal approx. 18 years. Founded primarily to serve general aviation, the firm has evolved into manufacturing of specialized test equipment such as digital localizer test set, headset THS TERS & T.I.T. sets.

The firm produces a H.F. S.S.B. transceiver for light a/c and helicopters. R & D and design in avionic is a strong point. Firm has modest sheet metal capability.

Quality Standards

DND: Can meet AQAP-1, AQAP-4

Others: D.O.T.

Major Clients

Department of Supply and Services
Coast Guard
Air Canada
Nationair

Employees (1986) **Total:** 15

Engs. & Tech.: 3

Shop personnel: 10

Admin.: 2

Total Sales(1986) From \$1.5 to \$5 million

Plant Size 18,000 Sq. Ft.

1

4

ALTA PRECISION INC.



6095, Couture Blvd
St-Léonard, Québec
H1P 3G7

Contact: Guillermo Alonso
Walter Schultheiss
Telephone: (514) 326-0569

Company founded in 1979

Capabilities

High precision parts for aeronautical systems such as gyroscopes, landing gear components, manifolds, cams, hydraulic cylinders. Also produces structural parts as pylons, wing flaps, components for the Hellfire Program (Martin Marietta), fuel pump components.

Quality Standards

MIL: STD 45662

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

Programming system computer Fanuc, system P, model G.
Logistic system GN Fapt die II 5 Axes.

Numerical Control Machine Tools

Hardinge CHNC Chucker 2 Axes
Swedturn ST-10 lathe 2 Axes
OKK MCV-300 Vertical Machining Center 4 Axes
OKK MCV-800 Vertical Machining Center 4 Axes
OKK MCH-800 Horizontal Machining Center 4 Axes
OKK MCV-820 Vertical Machining Center 4 Axes
Swedturn ST-10 Lathe Machining Center 2 Axes
Coordinate Measuring Machine Mode (Mitutoyo B 241)

Specialized Equipment

Danobat internal & external universal grinder 10" dia. 20"
Jones & Shipman, surface grinder 6" x 18"
Abene milling machine 25" x 8" x 20"
Sunnen, precision honing machine, type MBB-1660

Major Clients

McDonnell Douglas Canada (McAir)
Martin Marietta Corporation
Menasco Aerospace Ltd
UDT Industries Inc.
Pratt & Whitney Canada

CAE Electronics
Canadair Ltd
Department of Supply and Services
Pneu Devices Inc.

Employees (1986) Total: 15

Engs. & Tech.: 2

Shop personnel: 11

Admin.: 2

Total Sales (1986) From \$1 to \$1.5 million

Plant Size 11,000 Sq. Ft.

ALUMINUM FOUNDRY & PATTERN WORKS LTD

1345, Miron Street
Ville St-Laurent, Québec
H4N 2C9

Contact: D.B. Chadwick, President
A. Chadwick, Vice-President
Telephone: (514) 747-7578
Fax: (514) 747-5776

Company founded in 1940

Capabilities

Non-ferrous foundry and pattern shop. Does sand casting of non-ferrous alloys by greensand, shell and CO₂ processes.

Quality Standards

DND: AQAP-4

Major Clients

Canadair Ltd
Menasco
Canadian Pratt & Whitney

Spar Aerospace
Bendix Avelex

Employees (1986) Total: 50

Total Sales(1986) From \$1 to \$1.5 million

Plant Size 25,000 Sq. Ft.

2

3

AMBER ELECTRO DESIGN INC.



4810, Jean-Talon West
Montréal, Québec
H4P 2N5

Contact: Guy Lemieux, Vice-President
Marketing
Telephone: (514) 735-4105
Telex: 05-827598

Company founded in 1973

Capabilities

Amber is a manufacturer of high performance distortion analysers and noise measurement systems. Such systems have various applications in low frequency audio systems, telecommunications and broadcasting. Increased use of automated test equipment for assembly line testing, research and development as well as quality control make Amber a capable supplier in this limited field of expertise.

Major Clients

CB
Canadian Armed Forces
Transport Canada
Bell Canada

Pacific Bell
Nasa
Hughes Aircraft

Employees (1986) Total: 25

Engs. & Tech.: 6

Shop personnel: 12

Admin.: 7

Total Sales(1986) From \$0.5 to \$1 million

Plant Size 5,000 Sq. Ft.

ARELL MACHINING LTD

9051, Parkway Blvd
Anjou, Québec
H1J 1N4

Contact: J. Lefort, Vice-President
Telephone: (514) 352-9425
Fax: (514) 351-2111

Company founded in 1961

Capabilities

Precision machine shop manufacturing small aircraft and engine parts.

Quality Standards

DND: AQAP-1
MIL: 9858A

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

Applicon Compact II with NC Graphic

Numerical Control Machine Tools

2 Hardinge CHNC Chucker 4 Axes

Standard — Modern NC 2060 Lathe 2 Axes

Hardinge CHNC-16 Chucker 2 Axes

Hardinge CHNC-1 Chucker 2 Axes

Ex-Cell-O CNC Milling 3 Axes

Hurco KMB-1 Milling 3 Axes

2 Hurco MB-11 Milling 3 Axes (24 Tools)

Waniso WMC-14 Mach. Center (18 Tools)

Other Automated or Specialized Equipment

FJ 805 Mitutoyo measuring center with HP 300 computer

Conventional Machinery

Honing	1	Milling	3
Profiling	1	Drilling	2
Lathe	7	Surface Grinding	1

Major Clients

Pratt & Whitney Canada

Hamilton Technology

Bendix Avelex

Canadair Ltd

Teleflex Morse

Dowty Equipment of Canada

Titeflex

Employees (1986) **Total:** 50

Shop personnel: 45

Admin.: 5

Total Sales (1986) From \$1.5 to \$5 million

Plant Size 11,000 Sq. Ft.

AVIATECH INC.



2400, Guénette
St-Laurent, Québec
H4R 2H2

Contact: Maurice Jagucki, President
Telephone: (514) 335-0166
Telex: 05-824946

Company founded in 1976

Capabilities

Manufacturer of aircraft seats, crew and passenger seats, bar and meal trolleys, galley inserts. Vacuum forming and some composite lay-ups in carbon, boron and kevlar epoxies. Specializes also in sheet metal fabrication.

Quality Standards

DND: AQAP-1 approval in progress

MIL: 9858A

Commercial: M.O.T., F.A.A., Canadair Ltd, Bell Helicopter, De Havilland of Canada, Air Canada, Canadian Pacific Airlines and Pacific Western Airlines.

Precision Machinery

Numerical Control Machine Tools

NC Lathe

Vertical NC Lathe

NC Machining Center 20 Stations

NC Turret Punch

Conventional Machinery

Turning (Lathe) 6

Milling 3

Surface Grinding 1

Drilling 7

Surfacing Heavy Router 2

Major Clients

Aero Mexico

Air Canada

Air Jordania

Air Tara

Arkansas Mod Center

Britannia Airways

C.P. Air

Canadian Armed Forces

Canadair Ltd

Casey Copter

Dassault Aircraft

De Havilland Aircraft

Dornier

Eastern Airlines

Eastern Provincial Airways

Eagle Air Europe Falcon Service

Flight Equipment

Innotech Aviation Ltd

Indian Airlines

Lockheed Aircraft

Marconi Canada Ltd

Matrox Electronic Systems

Midland Ross Galley Equipment

Nationair

Nordair

Northwest Territorial Airways

Pacific Western Airlines

Employees (1986) Total: 71

Engs. & Tech.: 5

Shop personnel: 63

Admin.: 3

Total Sales (1986) From \$1.5 to \$5 million

Plant Size 30,000 Sq. Ft.

AVITEC INC. (OUTILLAGE)

9309, Le Prado
St-Léonard, Québec
H1P 3H1

Contact: Vincent Di Sano
André Barrette
Telephone: (514) 326-9970
Fax: (514) 326-2040

Company founded in 1979

Capabilities

Outillage Avitec Inc. manufactures aircraft cutting tools, high speed steel and carbide inserts for special applications. Outillage Avitec also designs and manufactures to print.

Precision Machinery

Numerical Control Machine Tools

FZRA Gunder 4 Axis

Other Automated or Specialized Equipment

Specialized equipment for inspection of tools

Conventional Machinery

Turning (Lathe)	3	Surface Grinding	1
Milling	3	Tool & Cutter Grinders	11
Honing	1	Royal Oak Relief Grinder	3
External Grinder	2		

Major Clients

Pratt & Whitney Canada
Combustion Engineering
Marine Industries
Cegelec Industries
General Electric
Cleveland Twist Drills

Canadian National
Canadian Pacific
Air Canada
RJR McDonald
Nordair

Employees (1986) Total: 17
Engs. & Tech.: 3 **Shop personnel:** 12 **Admin.:** 2

Total Sales(1986) From \$1 to \$1.5 million

Plant Size 11,400 Sq. Ft.

2

4

B & D MACHINE PRODUCTS LTD



5175, Ramsay
St-Hubert, Québec
J3Y 2S3

Contact: Henry Brechbuhl, President
Josée Brechbuhl
Telephone: (514) 656-0239

Company founded in 1963

Capabilities

Precision machining. Specialized in the manufacturing of hydraulic parts, particularly for aircraft and aircraft engines.

Quality Standards

DND: AQAP-1, AQAP-4

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

General Numeric System P Programming System

Numerical Control Machine Tools

Mori Seiki TL-5A 1000, 2 Axes

OKK MCV-500 Machining Centre, 3 Axes, 20 Tool Tool-Changer

Mori Seiki SL2, 2 Axes

Mori Seiki SL3, 2 Axes

Conventional Machinery

Turning	10	Thread Grinding	1
Milling	4	Internal Grinding	2
Honing	1	Centre Grinding	1
Drilling	9	External Grinding	1
Saws	3	Surface Grinding	1

Major Clients

Pratt & Whitney Canada
Menasco
Bell Helicopter
Northern Telecom Canada

Bombardier
Dresser Canada
A.B.I.

Employees (1986) **Total:** 20

Engs. & Tech.: 1

Shop personnel: 18

Admin.: 1

Total Sales(1986) From \$1 to \$1.5 million

Plant Size 10,000 Sq. Ft.

BALLISTECH SYSTEMS INC.

3163, Harvey Street
St-Hubert, Québec
J3Y 3T7

Company founded in 1979

Contact: W.H. Friend, President
R.C. Edgar, Technical Director
G. Ratzler, Director, Software
Telephone: (514) 676-6259
Telex: 06-3666 to 21: XAE001

Capabilities

Research and product development in ballistics and aerodynamics, Air Traffic Control Simulation. Product areas include ballistic and rocket boosted radar targets, remotely piloted vehicles for surveillance and target drones, rugged instrumentation and field trials support. Air Traffic Control Procedural Training equipment and ATC Simulation, Mobile ATC Towers, ATC Signal Light Guns (Aldis Lamp).

Major Clients

Department of National Defence (Canada)
NATO

Employees (1986) Total: 20
Engs. & Tech.: 16 Shop personnel: 1 Admin.: 3

Total Sales (1986) From \$1 to \$1.5 million

Plant Size 3,000 Sq. Ft.

1

4

BELL HELICOPTER TEXTRON

A Division of Textron Canada Ltd



12,800, de l'Avenir Street
St-Janvier, Québec
J0N 1L0

P.O. Box 5005
Ste-Thérèse, Québec
J7E 4K7

Contact: Jim P. Schwalbe, President
Sam McQuerns, V.-P. Procurement
Telephone: (514) 437-3400
Telex: 05-25827
Fax: (514) 437-6888

Company founded in 1984, in Canada.
Bell Helicopter Textron Inc. was founded
in 1942, in the U.S.

Capabilities

First totally integrated helicopter manufacturing company in Canada, Bell Helicopter Textron Canada oversees the step-by-step fabrication of commercial model 206B JetRanger (5 places) and 206L LongRanger (7 places). It has a world mandate to design, manufacture, market and provide product support for a new family of light twin-engine helicopters models 400A and 440.

Quality Standards

DND: AQAP-4 (approved), AQAP-1 (meet)
MIL: I-45208 (approved), Q-9858 (meet)
Others: D.O.T. company approval

Precision Machinery

The ultra-modern Mirabel facility houses a multitude of high technology engineering and manufacturing capabilities, including tooling, sheet metal assembly, electrical fabrication and assembly, structural adhesive bonding, machining, welding, processing, testing, final assembly, painting and helicopter flight operations.

We find also chemical milling. The processing of composite materials represents a substantial portion of the factory space.

Supporting this concentrated engineering and manufacturing complex are integral laboratories and equipment for testing and verifying the properties and characteristics of materials, and for the specifications and standards compliance, as well as for undertaking pure and applied research.

Major Clients

Oil companies, major corporations, governments, police and emergency service, etc., in the world.

Employees (1986) **Total:** 435 (March 1987) (Increasing)
Engs. & Tech.: 100 **Shop personnel:** 135 **Admin.:** 200

Total Sales(1986) N/A

Plant Size 399,000 Sq. Ft.

BENDIX AVELEX INC.

200, Laurentian Blvd
Montréal, Québec
H4L 4X8

Company founded in 1931

Contact: Ken Kivenko, President
John Beaven, Marketing Dir.

Telephone: (514) 744-2811

Telex: 05-826688

Fax: (514) 342-3795

Capabilities

Bendix Avelex Inc., a subsidiary of the Bendix Aerospace Sector of Allied Signal Inc., headquartered in Montreal, Quebec, is an established high technology, Aerospace and Defence Electronics firm providing quality products and services to customers worldwide. Products include: Night Vision Goggles, Night Observation Devices (Long Range), Radar related systems, Vehicle Navigation Systems, Gun Alignment and Control Systems, Simulators and Training Systems, Fuel Flow Monitors, Aircraft Engine Controls and Accessories. Product Support services include: Integrated Logistics Support Reliability Improvement Programs, Technical Publications, comprehensive aftermarket service, and Repair and Overhaul. Engineering disciplines include: Electro-optics, Thermal Imaging, Lasers, Simulation, Geo Magnetics, Pneumatics, Fluid Dynamics and Hydro-mechanics, as well as electronics and software generation.

Quality Standards

DND: AQAP-1

MIL: 9858A

Others: Transport Canada, P & WC, Martin Marietta, Northrop, Boeing, Bell, Canadair Ltd, GE, Garrett Air Research, MEL

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

VAX 11-750, 11-780, 8500

4 X MACAUTO D100-C

RACAL-REDAC DSM-6-PC Design

ADA HOST & CROS Development System

Solid Modeling

20 Personal Work Stations

2 EDS Work Stations

1 VLS1 Work Station

Finite Element Analysis

Digital Logic System

Analog Simulation

Heat Transfer Simulation

Numerical Control Machine Tools

SIP 3K CN Jig Bore

Cleereman J53 Machining Centre 3 Axes

Warner & Swasey IAB Auto-Lathe 3-way Control

2 Warner & Swasey O-AB Auto-Lathe 3-way Control

2 K & T Cleereman J53-30 Machining Centre 3 Axes

Leblond Tape — Turn Lathe 2 Axes

Hardinge HNC Lathe 2 Axes

3 Sundstrand OMNI-Mill OMI Machining Centre 3 Axes

Sundstrand OMNI-Mill OMI Machining Centre 4 Axes

Brown & Sharpe 1500VC Machining Centre 3 Axes

Hardinge CHNC Lathe 2 Axes

Other Automated or Specialized Equipment

GEN RAD 1796 ATE

Wayne Kerr 8315

Thermotron Burn-in Chambers up to 82 cu ft.

QRS-100 QUASI Random Simultaneous

Triaxial Vibration

Functional Tester

Leitz DMM 866 Precision Measuring Machine

LTS 2020 Tester

EMS 4036A Hot Rail Handler

Major Clients

Department of National
Defence (Canada)
Pratt & Whitney Canada
Boeing Vertol

Air Canada
De Havilland Aircraft
G.E., Lynn, Mass
Department of Defence (U.S.A.)

Martin Marietta
Various Governments outside
of North America

Employees (1986) Total: 850

Engs. & Tech.: 150

Shop personnel: 400

Admin.: 300

Total Sales (1986) From \$50 to \$100 million

Plant Size 220,000 Sq. Ft.

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BOMEM INC.



625, Marais Street
Vanier, Québec
G1M 2Y2

Contact: J.N. Bérubé, Marketing Director
Telephone: (418) 683-1707
Telex: 051-3438
Fax: (418) 683-9343

Capabilities

Designs and manufactures analytical and remote sensing.
Fourier transform infrared spectrophotometers (FTIR).

Quality Standards

Others: CSA 299-3

Employees (1986) **Total:** 128

Engs. & Tech.: 46

Shop personnel: 62

Admin.: 20

Total Sales (1986) From \$5 to \$10 million

Plant Size 18,000 Sq. Ft.

C.A.T. INDUSTRIES

8267, Le Creusot
St-Léonard, Québec
H1P 2A2

Contact: Guy Aubart, President
Telephone: (514) 323-7643

Company founded in 1974

Capabilities

Machine shop specializing in landing gear and aircraft engine components, tooling and fixtures.

Quality Standards

DND: AQAP-4
MIL: 45208A

Precision Machinery

Numerical Control Machine Tools

1 Milling CMC Lagun
1 Cather CMC Galanie

Conventional Machinery

Turning (Lathe)	5	Thread Grinding	1
Milling	6	Internal Grinding	2
Honing	1	External Grinding	2
Profiling	5	Surface Grinding	2

Major Clients

Menasco Canada	Canadian Arsenals
Rolls-Royce	Infacio
CAE Electronic	Conseil National de Recherche
Pratt & Whitney Canada	École Polytechnique
Canadair Ltd	Canadian Vickers

Employees (1986) Total: 18

Total Sales(1986) From \$0.5 to \$1 million

Plant Size 7,000 Sq. Ft.

2

4

C.F.H. INDUSTRIES LTD **(Aerospace Division)**



103, Gun. Ave.
Pointe-Claire, Québec
H9R 3X2

Contact: Robert Robichaud, President
Rene Gagnon, Manager

Telephone: (514) 694-3980

Telex: 05-821609

Capabilities

Assembler of aircraft parts. The company is also involved in the repair of automatic fire extinguishing and automatic fire prevention systems.

Quality Standards

DND: AQAP-1

MIL: 9858A, P-16232-F

Commercial: CTC H-Test Facilities

Others: M.O.T.

Major Clients

Government agencies and all major airlines and commercial aircraft operators in Canada.

Employees (1986) Total: 20

Plant Size 22,500 Sq. Ft.

C.P.S. INDUSTRIES INC.

2745, De Miniac Street
St-Laurent, Québec
H4S 1E5

Contact: Herman Schaubhut, President
Peter Wiedemann, Sec. Treas.
Telephone: (514) 336-0568

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Company founded in 1962

Capabilities

C.P.S. Industries Inc. was founded in 1962 as a manufacturer of small and medium size aircraft parts. It specializes in the manufacture of various aircraft engine parts and landing gear components. Main products are: Liner Bushings, Torsion Links, Fuel and Hydraulic Metering Components, Actuator Housings, Piston Pins and Housings, Manifolds, etc. C.P.S. Industries Inc. is familiar with special alloys (e.g. inconel, titanium high heat-treat alloys, etc.).

Quality Standards

DND: AQAP-1
MIL: 45208A
Others: P & W

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

Pathtrace, Omniprep

Numerical Control Machine Tools

Mori Seiki SL2H, 2 Axes CNC Lathe	Miyano JNC-60, 2 Axes CNC Lathe
Mori Seiki SL3A, 2 Axes CNC Lathe	Wasino LG-81, 3 Axes CNC Lathe
Mori Seiki SL-4, 4 Axes CNC Lathe	OKK MCV-410, 4 Axes Mach. Center
Mori Seiki TL-2, 2 Axes CNC Lathe	OKK MCV-500, 4 Axes Mach. Center
Mori Seiki TL-4, 4 Axes CNC Lathe	Hurco MBIS, 4 Axes Mach. Center

Other Automated or Specialized Equipment

Mitutoyo Coordinate Measuring Machine, Model B-231 with HP9121 Computer

Conventional Machinery

Turning (Lathe)	9	Internal Grinding	1
Milling	8	External Grinding	2
Honing	1	Surface Grinding	1
Profiling	1	Centerless Grinding	1
Drilling	10		

Major Clients

Menasco Aerospace Ltd	Canadair Ltd
Pratt & Whitney Canada	Dowty
Canadian Marconi	Bendix Corp.
CAE Electronics	Department of National Defence (Canada)
Lucas Aerospace	

Employees (1986) Total: 60
Engs. & Tech.: 5 **Shop personnel:** 51 **Admin.:** 4

Total Sales(1986) From \$1.5 to \$5 million

Plant Size 20,000 Sq. Ft.

CAE ELECTRONICS LTD



8555, Côte de Liesse
St-Laurent, Québec
H4L 4X4

Company founded in 1947

Contact: D.R. Tait, V.-P. Sales
G. Weintraub, Dir. Supp. PGRM.
Telephone: (514) 341-6780
Telex: 824856
Fax: (514) 341-7699

Capabilities

Design and manufacture of civil and military simulators for fixed and rotary wing aircraft as well as for space vehicles and nuclear application. Control systems for nuclear and hydroelectric power generating plants; naval machinery control, air traffic control. Magnetic Anomaly Detection of Submarines.

Quality Standards

DND: NATO AQAP-1

MIL: 9858A

Others: CSA/Z/299-1, NASA NHB 5300.4

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

Intergraph workstation; 25 PC-CAD/CAM workstation

Numerical Control Machine Tools

Leblond Tape-Turn Regal 2 Axes

2 Browne & Sharpe Tape Drill 2 Axes

3 Gardner-Denver Wire-Wrap Model 14-YA-1 2 Axes

Strippit-Houdaille Fabri-Centre 1000 2 Axes

2 Mazak V-12 Machining Centre 1000 2 Axes

Excellon XL-3 4 Spindle Drill 2 Axes

Hartford Engraver 2 Axes

CS-400A Component Locator

Other Automated or Specialized Equipment

Hydraulic Test Facility

Engineering Computer Centre

Conventional Machinery

Various

Major Clients

Canadian Armed Forces, U.S., Germany, Italy and other countries. Most of the world's major airlines.

Major utilities in Canada, U.S., Venezuela, such as Ontario Hydro, Hydro-Quebec, Boston Edison, Florida Light & Power.

Employees (1986) Total: 2,700

Engs. & Tech.: 1,200

Shop personnel: 800

Admin.: 700

Total Sales (1986) Over \$100 million

Plant Size 499,792 Sq. Ft.

CANADAIR INC.

1800, Laurentian Blvd
St-Laurent, Québec
H4R 1K2

Company founded in

Contact: Mr. David C. Lowe, President
and Chief Executive Officer
Telephone: (514) 744-1511
Telex: 05-826747
Fax: (514) 744-6586

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4

Capabilities

Manufacturer of aircraft, airborne surveillance drones, proprietary design and subcontracting.

Quality Standards

DND: AQAP-1, AQAP-9

MIL: 9858A

Others: FAA, FAR Part 21 and equivalent chapters of Transport Canada Airworthiness Manual.

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

30 IBM 5080 Cadam Scopes
10 IBM 3250 Cadam Scopes
11 Adaga Cad 2/50s
Versatek 11" black & white electrostatic plotter
Versatek 36" black & white electrostatic plotter
Versatek 36" color electrostatic plotter

Numerical Control Machine Tools

3 Tape-O-Matic Single Spindle Drill, Model A 2 Axes
2 Milwaukee-Matic Series EB Machining Centre 3 Axes
3 Warner & Swasey No. 2AB Single Spindle Bar Auto 3 Axes
Warner & Swasey No. 2AC Single Spindle Bar Auto 3 Axes
6 Cincinnati Profile & Contour Gantry-Type Mills 5 Axes
2 Cincinnati CIM-X-220 2 Axes
3 Kearney & Trecker Model III Milwaukee-Matic 5 Axes
Warner & Swasey SC-28 Turret Lathe M-4530 2 Axes
3 Kearney & Trecker 814-3S-3 Spindle Profiler 3 Axes
Devlieg Jigmill SK-144 2 Axes
2 Eaton-Leonard Tube Bending System
Warner & Swasey SC15 Turret Lathe 2 Axes
L & F Sheridan Gray Stretch Forming Machine 3 Axes — 1000 ton
Ingersoll CNC 3-Spindle Gantry Type Profiler 3 Axes
7 Kearney & Trecker MM200 Machining Centre 4 Axes
Gerber NIC Drafting Machine 3 Axes
Sheridan-Gray CNC Stringer Roll Forming CNC-4 3 Axes

Conventional Machinery

Turning (Lathe)	34	Thread Grinding	2
Milling	45	Internal Grinding	2
Boring	12	External Grinding	8
Honing	3	Surface Grinding	14
Profiling	43	Tool Grinding	19
Drilling	46	Center less Grinding	2
Broach	1	Hubbing Grinder	1
Thread Rolling	1		

Major Clients

Major corporations
Governments (Federal, Provincial)

Employees (1986) **Total:** 5,500
Engs. & Tech.: 658 **Shop personnel:** 2,876 **Admin.:** 1,966

Total Sales (1986) Over \$100 million

Plant Size 2.8 million Sq. Ft.

CANADIAN GENERAL ELECTRIC CO. LTD



2, de l'Aéroport Blvd
Bromont, Québec
J0E 1L0

Contact: R.D. Pelletier, Director
Telephone: (514) 534-3270
Telex: 05-832559
Fax: (514) 534-3270 Ext. 260

Company founded in 1981

Capabilities

CGE Bromont started operations in 1981 as the result of an economic and technological exchange between Canada and the United States. This was related to Canada's purchase of the F-18 fighter whose engines were supplied by General Electric U.S.A. This plant specializes in the cold and hot forging of aircraft jet engine compressor blades. A CAD/CAM system is used for the design and fabrication of all the tooling. Production is highly automated and robotized.

Quality Standards

MIL: 9858A, 1520B, 45662A
Others: G.E.

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

Calma System on VAX-780

Robotics

GE GP110
GE P5
GE P50

Numerical Control Machine Tools

2 ISS800 Blohm Grinder	2 Timemaster Lathes
4 SRS1000 Blohm Grinder	1 Mazak Lathe
1 Weldon	1 Agie Wire EDM
1 Burgmaster Vertical Tool Changer	3 Cincinnati Lathes
1 Wanli Machining Centre	

Other Automated or Specialized Equipment

2 Abar (computerized high vacuum furnace)
1 Hayes (Continuous overlap furnace)
5 Weingarten (Screw presses) 1600T-2500T

Conventional Machinery

Lathes	4	Hydraulic Presses	7
Milling Machines	13	Shot Peening Machines	2
Fluoroscopic Inspection Line	1	Optical Comparators	12
Computerized Laser Marking	2	Computerized Measuring Systems ..	3
Drilling Machines	3	Black Oxydizing Line	1
EDM	4	Rotary Furnace	9
Barrel Polishing Machines	6	Chemical Milling Line	1

Major Clients

General Electric Co. (Evendale, Ohio)

Employees (1986) Total: 460

Engs. & Tech.: 70

Shop personnel: 390

Total Sales(1986) From \$10 to \$50 million

Plant Size 128,000 Sq. Ft.

CANADIAN MARCONI COMPANY

2442, Trenton Avenue
Montréal, Québec
H3P 1Y9

Company founded in 1903

Contact: P.F. Wheatley, President
Vanka Dvornis, Man. Corp. Comm.
Telephone: (514) 341-7630
Telex: 05-827822
Fax: (514) 340-3100

Capabilities

Canadian Marconi Company is a high technology electronics firm, with expertise in avionics, specialized components, radar, tactical and data communications and repair, overhaul, integration and support of sophisticated electronic equipment.

Quality Standards

DND: AQAP-1, AQAP-4, AQAP-6
MIL: 9858A, 45208A
Others: DOT FAA ARINC

Precision Machinery

Robotics

GCA DK p-300v Robot with Cimroc Control
Hughes HMC-2460-II Automatic Wire Bonder
Teradyne W-429 Step/Repeat thick film laser trim system

CAD/CAM Computer-Assisted Programming Capability

PC-800 Gerber digital HP 1000 computerized artwork
Redac. System PDP 1124 Comput. Art
DITMCO Printed Win Board tester
MacDonald-Dettwiler Fire 9000 Laser Plotter, Gerber plotters

Numerical Control Machine Tools

K & T Milwaukee-Matic Series EB 3 Axes
Warner and Swasey Wiedenatic Punch S-2540
Bridgeport NC Milling machine 2 Axes
Kearney and tacker MM 180 3 Axes
OKK-CNC Matic II MCV-500 Centre 4 Axes
Mori-Seiki SL-4 CNC Lathe 2 Axes
Hardinge CHNC-16 Lathe 2 Axes

Other Automated or Specialized Equipment

BTU TFF-141 Fast Fire Infrared Furnace

Conventional Machinery

Turning (Lathe)	Profiling	Internal Grinding
Milling	Drilling	External Grinding
Boring	Sheet Metal	Surface Grinding
Honing		

Major Clients

Sperry (Unisys)	Canadair Ltd	Lockheed
Litton Systems Canada	Norden Systems	GEC
Nordair	Hughes Aircraft Corp.	Simmonds Precision
Raytheon Canada Ltd	Sikorsky Aircraft Corp.	Magnavox

Employees (1986) Total: 2,800
Engs. & Tech.: 700 **Shop personnel:** 1,000 **Admin.:** 1,100

Total Sales (1986) Over \$100 million

Plant Size 485,000 Sq. Ft.

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2

4

CASEY COPTER ACCESSORIES LTD



511, Lépine Street
Dorval, Québec
H9P 2S9

Contact: A.J. Casey, President
M.J. Casey, Vice-President
Telephone: (514) 636-6155
Telex: 05-821574

Company founded in 1974

Capabilities

Designs and manufactures aircraft heating and airconditioning systems using waste heat recovery by proprietary means, airconditioning by vapour cycle method. Capability includes design of air distribution and functional test of systems on test bench. Additional abilities include manufacture of aircraft maintenance and test equipment and electronics cooling applications of vapour cycle system.

Quality Standards

Others: M.O.T., Bell Helicopter, Canadair Ltd, Partenavia.

Major Clients

Canadair Ltd	Partenavia
Siai Marchetti	US Army
Bell Helicopter Textron Canada	Agusta S.A.

Employees (1986) Total: 12
Engs. & Tech.: 5 **Shop personnel:** 4 **Admin.:** 3

Total Sales (1986) From \$0.5 to \$1 million

Plant Size 8,500 Sq. Ft.

CERCAST INC.

3905, Industrial Blvd
Montréal North, Québec
H1H 2Z2

Company founded in 1955

Contact: F. Valenta, President
E. Heimbach, Exec. Vice-President
Telephone: (514) 322-2371
Telex: 05-829500
Fax: (514) 322-1340

Capabilities

Manufacturer of large, complex investment castings. Castings are mainly used in aerospace applications and delivered to all major aerospace industries in Canada, U.S. and Europe.

Quality Standards

DND: AQAP-4
MIL: 45208

Precision Machinery

Other Automated or Specialized Equipment

Robotics in the ceramic molding department.

Major Clients

CANADA: Bristol Aerospace, Canadair Ltd, Garrett, Pratt & Whitney, Spar Aerospace.

U.S.A.: Boeing, General Electric Co., Hughes Aircraft Co., Litton, Lockheed Electronics, Lockheed Missiles & Space, Martin Marietta Corp., McDonnell Douglas Corp., Raytheon Co. (several divisions).

EUROPE: Avions Marcel Dassault, Thomson, British Aerospace, GEC Computers Ltd, Lucas Aerospace, Marconi Space & Defence, Plessey Co., Smith Industries, Phillips, Ericsson, Electronica.

Employees (1986) Total: 185 Maintenance personnel

Engs. & Tech.: 25

Shop personnel: 145

Admin.: 15

Total Sales (1986) From \$10 to \$50 million

Plant Size 82,000 Sq. Ft.

CIRCO CRAFT CO. INC.

17,600, Trans-Canada Highway
Kirkland, Québec
H9J 3A3

Company founded in 1973

Contact: Ben Daller, Sales Manager
Pierre Boivin, Sales Manager
Telephone: (514) 694-8000
Telex: 05-823523
Fax: (610) 531-6600

Capabilities

Circo Craft can design and manufacture a full line of assembled or substrate only hybrid microelectronic devices for military, telecommunication or commercial applications. The company also designs and manufactures, on a small or large scale, printed wiring boards of various numbers of layers and complexity for miscellaneous applications. Government recognized laboratory for Group B testing in accordance with MIL-P-5511D.

Quality Standards

DND: AQAP-1, AQAP-6

MIL: 55110-D, 9858A, 13949F, 45208, 1520, 454, 5400, 45662, 52779

Others: NATO and UL-E62565

Precision Machinery

Robotics

Assembly lines for S.M.D. including automated pick & place equipment.

CAD/CAM Computer-Assisted Programming Capability

GERBER PC-800 Design aids workstation and digitizer

GERBER 4135 Photoplotter

OPTROTECH Image 2000 edit station and archive unit

OPTROTECH Image 2000 laser plotter

Numerical Control Machine Tools

18 Posalux & Excellon CNC drilling machines

3 N/C programming machines

3 ATI & CNC routing machines

Other Automated or Specialized Equipment

2 Projectina Optical coordinate measuring machine

2 Cordax 1000 — coordinate measuring machine

4 ATG Electronic — electrical testers

1 Circuit Line Electrical tester

Conventional Machinery

Standard machine tool equipment, sheet metal fabrication equipment, automated plating & wet process lines, printing and baking equipment, camera room equipment, miscellaneous testing equipment, printing and firing equipment for ceramic substrate.

Major Clients

Northern Telecom Canada Ltd

I.B.M. Canada Ltd

Digital

Employees (1986) Total: 740

Engs. & Tech.: 30

Shop personnel: 570

Admin.: 140

Total Sales(1986) From \$50 to \$100 million

Plant Size 275,000 Sq. Ft.



CLARO PRECISION INC.

8140, Lafrenaie
St-Léonard, Québec
H1P 2A9

Contact: J.L. Mourain, President
D. Molina, Vice-President
Telephone: (514) 327-3613
Fax: (514) 327-3677

Company founded in 1966

Capabilities

Claro Precision is specialized in the precision machining of small to medium size aerospace and telecommunication components.

These components are used in aircraft engines, structures, hydraulics and landing gears. Telecom components are used in simulators, control panels and wave transmitters.

Quality Standards

DND: AQAP-4
MIL: 45208-A

Precision Machinery

Numerical Control Machine Tools

6 Bridgeport CNC serie I 3 Axes
1 Bridgeport CNC serie II 3 Axes
1 Okuma MC-4VA machining Center 4 Axes
1 Okuma LSN-10 Lathe 2 Axes
1 Okuma LC-10 Lathe 2 Axes
2 Hardinge HNC 2 Axes

Conventional Machinery

Lathes (turning)	10	Internal & External Grinding	1
Milling	10	Surface Grinding	2
Honing	3	Centerless Grinding	1
Drilling	12	Aluminum Brazing Facilities	

Major Clients

Menasco Aerospace Ltd
Canadair Ltd
C.A.E. Electronics
Mc Donnell Douglas

Pratt & Whitney Canada
British Aerospace
Canadian Marconi Co.

Employees (1986) Total: 42
Engs. & Tech.: 4 Shop personnel: 35 Admin.: 3

Total Sales(1986) From \$1.5 to \$5 million

Plant Size 20,000 Sq. Ft.

D.M.G. INC. (USINAGE MÉCANIQUE)



5782, Industrial Blvd
Montréal, Québec
H1G 3J2

Contact: André Castonguay, President
Gilles Guernon, Sec.-Tres.
Telephone: (514) 324-0535

Company founded in 1974

Capabilities

Precision machine shop with special expertise in molds and toolings.

Precision Machinery

Numerical Control Machine Tools

Vertical Enshu JML 430 Fanuc 12 M 1987

Conventional Machinery

Turning (Lathe)	3	Drilling	7
Milling	6	Grinding	1
Honing	1	Saw-Cutting	2
Profiling	2		

Major Clients

Canadair Ltd
Alcan
Hydro-Quebec
Spiro America
Acier Stel-Bec (Rader)

Employees (1986) Total: 9

Shop personnel: 7

Admin.: 2

Total Sales (1986) From \$0.5 to \$1 million

Plant Size 4,200 Sq. Ft.

D.P. DIGITAL PRECISION INC.

185, du Pacifique
Laval-des-Rapides, Québec
H7N 3X9

Contact: Serge Haefelfinger, President
Jean-Marie Legris, Technical Rep.
Telephone: (514) 387-8382 — 668-4601

Company founded in 1976

Capabilities

D.P. Digital Precision Inc. offers a unique service of precision WIRE E.D.M. machining. Over the years the company has acquired experience in that field and D.P. now owns and operates six WIRE E.D.M. MACHINES among other equipment. At the very beginning services were limited to only a few applications, ex.: punch and die, small series of pieces, etc. Since then market for other services has grown and expanded to prototype and production of parts for aircraft, tapered parts with angles up to 30 degrees, special gears, etc.

Quality Standards

Others: Pratt & Whitney CPW-350

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

5 programming stations, with 2 plotters

Numerical Control Machine Tools

3 Charmilles F-45

1 Japax LU3B including small hole drilling

1 Mitsubishi DWC-200 (15° maximum angle cut)

1 Charmilles Robofil CF-400 (30° maximum angle cut)

Other Automated or Specialized Equipment

1 Mitutoyo electronic measuring machine

1 Optical comparator

Conventional Machinery

Milling 1

Lathe 1

Surface Grinder 1

Major Clients

Pratt & Whitney Canada

Northern Telecom

Rolls-Royce

Black & Decker Commander

I.B.M.

Employees (1986) Total: 16

Engs. & Tech.: 12

Admin.: 4

Total Sales(1986) From \$1 to \$1.5 million

Plant Size 7,000 Sq. Ft.

DOMETAL INC.

180, Labrosse
Pointe-Claire, Québec
H9R 1A1

Contact: Oscar Stravinsky, Marketing Eng.
Telephone: (514) 630-4877
Fax: (514) 630-4849

Company founded in 1955

Capabilities

Precision metal stamping — Sheet metal fabrication — Tig and Mig Arc welding — Resistance spot welding — Painting and silk screening.

Quality Standards

DND: AQAP-4
MIL: 1-45208
Others: As requested

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

Cimlinc A 1985

Numerical Control Machine Tools

Numerical control

Punch pressers:

Make-Amada	Pega	(1)	1980
	Coma	(1)	1981
	Pega	(1)	1984
	SPH-30	(1)	1986

Fanuc controls (4)

Conventional Machinery

Sheet Metal	25
Metal Stamping	30
Tool & Die Punching	15
Mechanical Assemblies	10

Major Clients

Pratt & Whitney Canada
Raytheon Canada Ltd
Xerox Corp.
Northern Telecom

Employees (1986) Total: 120

Engs. & Tech.: 19

Shop personnel: 86

Admin.: 15

Total Sales(1986) From \$5 to \$10 million

Plant Size 110,000 Sq. Ft.

EASTERN AEROCAST INC.

1050, St-Amour Street
St-Laurent, Québec
H4S 1J2

Contact: Mr. L. Tom
Mr. E. Fox
Telephone: (514) 337-4551
Telex: 05-824901

Company founded in 1953

Capabilities

Originally founded in 1953 as Supreme Precision Casting, Eastern Aerocast is a manufacturer of ferrous and non-ferrous precision investment castings.

Ferrous Castings — 12" × 12" and up to 50 lbs.

Non-Ferrous Castings — 16" × 16"

Quality Standards

DND: AQAP-4

MIL: I45208A STD-2175 A21180 S81591

Others: Boeing De Havilland, McDonnell Douglas, etc.

Precision Machinery

Robotics

One shell making robot

Conventional Machinery

Turning (Lathe)	2	Induction heating	2
Milling	4	X-Ray equipment	1
Grinding	6	Zyglo	1
Furnaces	6	Tensile test	1
Melting furnace	2	Micro structure	1

Major Clients

De Havilland Aircraft
Boeing Aircraft Co.
Atomic Energy of Canada
Hartwell Corporation

Pall Land & Marine Corp.
Stewart Warner Corp.
McDonnell Douglas Canada (MCAIR)

Employees (1986) Total: 30

Engs. & Tech.: 2

Shop personnel: 26

Admin.: 2

Total Sales(1986) From \$1.5 to \$5 million

Plant Size 20,000 Sq. Ft.

EASTERN PRECISION CASTING INC.



820, Deslauriers Street
St-Laurent, Québec
H4N 1X1

Company founded in 1976

Contact: Mr. L. Tom, President
Mr. P. Campanella
Telephone: (514) 337-9600
Telex: 05-826547
Fax: (514) 337-9600 Ext. 33

Capabilities

Manufacturer of ferrous and non-ferrous precision investment castings. Types of castings produced are chassis, housings, adapters, fluid dynamic parts for aerospace, aircraft and military industries.

Non-ferrous Castings — 50" × 30" × 20"

Ferrous Castings up to 150 lbs., 20" × 20" × 20"

Quality Standards

DND: AQAP-4

MIL: I45208A STD 2175, A21180, S81591

Others: P & WC, Martin Marietta, Rockwell, Litton, Singer, Canadair Ltd, etc.

Precision Machinery

Robotics

1 Robot for wax injection.

Other Automated or Specialized Equipment

1 Mitutoyo 3 Axis coordinate measuring machine

Conventional Machinery

Turning (Lathe)	2	Spectrometer	1
Milling	2	Zygo	1
Grinding	8	Tensile test	1
Cut-off Machines	2	Heat treatment	1
Furnaces	12	Wax Injection	10
X-Ray equipment	1	Band Saws	2

Major Clients

Pratt & Whitney Canada
Canadair Ltd
DeHavilland Co.
Garrett Canada Ltd
Canadian Marconi Company
C.A.E. Ind.

Hughes Aircraft Corp.
Litton Ind.
Rockwell International Corp.
Martin Marietta Corporation
Singer Corp.

Employees (1986) Total: 140

Engs. & Tech.: 31

Shop personnel: 100

Admin.: 9

Total Sales(1986) From \$5 to \$10 million

Plant Size 50,000 Sq. Ft.

ELIMETAL INC.

2367, 43th Avenue
Lachine, Québec
H8T 2K1

Contact: Eli Kedem, President
Telephone: (514) 631-0064

Company founded in 1980

Capabilities

Specialize in providing wire spark machining services in the production of tooling, prototype parts and batch production runs for a wide range of industries.

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

2 Digital WT78 Programming C.N.C. 1982
5 Digital WT78 Wire EDM Machines 1983
1 H.P. 9836 — CAD/CAM Wire 1985
1 H.P. 310 — CAD/CAM Wire 1986

Numerical Control Machine Tools

5 Charmilles C.N.C. Wire EDM Systems
1 Charmilles Andrew EF-330 1982
1 Charmilles Andrew GF-630 1983
Charmilles Andrew EF-20-330 1984
Charmilles Robifil CF-400 1985
Charmilles Andrew EF-22-930 1987

Conventional Machinery

Precision EDM Work

Major Clients

Pratt & Whitney Canada
CAE

Employees (1986) **Total:** 12
Engs. & Tech.: 10 **Admin.:** 2

Total Sales(1986) From \$0.5 to \$1 million

Plant Size 5,000 Sq. Ft.

2

4

EPIX INC.



1851, Sherbrooke St. East, Suite 1100
Montréal, Québec
H2K 4L5

Contact: Marc J. Gagnon, President
Michel R. Turcotte, V.-P. Marketing
Telephone: (514) 522-3749
Telex: 055-60984

Company founded in 1971

Capabilities

EPIX INC. is a Canadian company, founded in 1971. It is a highly specialised engineering firm dedicated to the design and preparation of maintenance management systems for all types of equipment (production, transport, buildings, ships, airports, hospitals). It specializes in efficiency studies and design computerised turnkey systems (Networked and interactive). Its standards are very high and its systems are easy to use and to implement. The company has 700 customers in 7 countries. It works in English, French and Spanish. The firm has a R & D group able to custom design softwares using expert systems and can rapidly design systems to run on Micro computers.

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

The firm's maintenance system ties in with a C.A.D.

Other Automated or Specialized Equipment

Complete design of: Maintenance management system including — Inventory control, purchasing, quality controls, planned maint., warantie check and claims, project management.

Major Clients

Department of Transport
Canadair Ltd
Bombardier Ltd
Firestone

Employees (1986) Total: 35

Engs. & Tech.: 8

Shop personnel: 20

Admin.: 7

Total Sales(1986) From \$1.5 to \$5 million

Plant Size Sq. Ft.

EXPORT SCOVILL LTD

5570, Cartier Street
Montréal, Québec
H2H 1X9

Company founded in 1944

Contact: S. Silverman, President
V.K. Goel

Telephone: (514) 527-9814

Telex: 055-62128

Fax: (514) 288-2519

Capabilities

Manufacturer of custom made precision zinc diecastings, Export Scovill Ltd is fully equipped to build all moulds to close tolerances, and has facilities for secondary operations, such as tapping, drilling, reaming. It specializes in the design and manufacture of diecast machines using in the manufacturing process "state of the art" technology. It has an active R & D Dept. covering all facets of the manufacturing process. More than 50% of the production is exported to the U.S. market.

Quality Standards

DND: AQAP-4

Others: A-0022550, T-17879, I-45208A, STD-105D, STD-171C, C-17711B, T-12879A

Commercial: Specify

Precision Machinery

Other Automated or Specialized Equipment

2 Electrical Discharge Machines

Conventional Machinery

Turning (Lathe)	2	Profiling	1
Milling	3	Drilling	5
Honing	1	Surface Grinding	8

Major Clients

Eastman Kodak
Hamilton Technology
Hermes Electronics
Dayron Corp.
Bulova Systems & Instr.

Northern Telecom
Canadian Arsenals
Intel Corp.
Crosman Airguns
Motorola Inc.

Employees (1986) Total: 85

Engs. & Tech.: 25

Shop personnel: 45

Admin.: 15

Total Sales(1986) From \$1.5 to \$10 million

Plant Size 25,000 Sq. Ft.

FERNDALE INDUSTRIES LTD



1540, Henri-Bourassa East
Montréal, Québec
H2C 1H7

Contact: Fernand Rheault, President
Jacques Rheault, Vice-President
Telephone: (514) 387-3361

Company founded in 1952

Capabilities

Fabrication of small and medium size aircraft parts, as well as precision parts for the chemical industry. Production of valve-seats for the submarine industry. The firm is a machine shop that handles small to medium size quantities.

Quality Standards

DND: AQAP-1, AQAP-4

Precision Machinery

Conventional Machinery

Turning (Lathe)	7	Drilling	3
Milling	4	Internal Grinding	1
Honing	1	External Grinding	1
Profiling	1	Surface Grinding	2

Major Clients

Canadair Ltd	Bombardier
General Dynamics Manufacturing	Union Carbide
Pratt & Whitney Canada	Rolls Royce Canada
Menasco	

Employees (1986) Total: 9
Shop personnel: 6 Admin.: 3

Total Sales(1986) Under \$0.5 million

Plant Size 2,500 Sq. Ft.

FILZMOSEY INDUSTRIES INC.

182, Industrial Blvd
St-Eustache, Québec
J7R 5C2

Contact: Martin Filzmoser, President
Peter Filzmoser, Vice-President
Telephone: (514) 472-6610

Company founded in 1976

Capabilities

Originally known as Mega Machines, Filzmoser Industries was incorporated in 1980. It specializes in the design and manufacture of small moulds and fixtures for the investment casting industry.

Quality Standards

DND: AQAP-1, AQAP-4
MIL: Q-9858A, I-45208A

Precision Machinery

Conventional Machinery

Turning (Lathe)	1	
Milling	5	(with digital readout)
Drilling	3	
Surface Grinding	1	
Cutter Grinding	1	

Major Clients

Major Investment Casting Houses in Canada and USA.

Employees (1986) Total: 4
Shop personnel: 3 Admin.: 1

Total Sales (1986) Under \$0.5 million

Plant Size 1,500 Sq. Ft.

2

4

FLEXIBULB INC.

A Division of Avcorp Industries Inc.



P.O. Box 635, 9000 Parent
Trois-Rivières, Québec
G9A 5J3

Contact: Jeannot Bourassa, President
Telephone: (819) 374-9250

Company founded in 1970

Capabilities

PROCESSES: Thermoforming, extrusion, vacuum deposition, injection.

MATERIALS: Polycarbonate, ABS, polyethylene, nylon, plastics, polyurethane, integral foam.

PRODUCTS: Inner liners, light diffusers, shapes, armrests, cushions, baggage racks and custom products for aircraft, trains and buses; polycarbonate and acrylic for windows of mass transit vehicles.

Quality Standards

DND: AQAP-4

Others: Canadair Ltd, Bell Helicopter, Transport Canada

Precision Machinery

Numerical Control Machine Tools

Bridgeport Series 1 A

Conventional Machinery

Turning (Lathe)	2
Milling	2
Drilling	1
Grinding	1

Employees (1986) Total: 31

Shop personnel: 27

Admin.: 4

Total Sales (1986) From \$1 to \$1.5 million

Plant Size 2,300 Sq. Ft.

GENTNER INC.



8710, Le Creusot
St-Léonard, Québec
H1P 2A7

Company founded in 1969

Contact: Roger F. Gentner, President
Z. Mike Pasek, General Mgr
Telephone: (514) 321-3680
Twx: (610) 421-3301

Capabilities

Precision machine shop specializing in the machining, finishing and assembly of precision parts for aircraft engines, gear box housings, spacecraft, impellers, etc. Design and manufacture of space and naval microwave telecommunication components and sub-assemblies for military and civil applications.

Quality Standards

DND: AQAP-1, AQAP-4
MIL: 9858A, 45208A
Others: P & WC, Raytheon, Canadair Ltd, Bell Helicopter

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

Computers: Hewlett-Packard HP-85, HP-86, HP-9836, HP-VECTRA, Compact 386
Printers: HP-82905B Impact, HP-2225B Jet, HP-33440A Laser
Plotters: HP-7225B, HP-7475A
DSI Mylar Punch Reader
CAD/CAM: NICAM — APT 5 Axes
Fanuc System P-Model D Computer System

Numerical Control Machine Tools

3 Excello 3-Axes Vertical Machining Center Model 602
1 Kuraki 4-Axes Vertical Machining Center Model KV-1000, 20 Tool ATC
1 Mitsui Seiki Simultaneous 4-Axes Horizontal Machining Center Model HR5B, 60 Tool ATC
1 Mitsui Seiki Simultaneous 5-Axes Horizontal Machining Center Model HR5B, 60 Tool ATC
1 Mitsui Seiki Simultaneous 5-Axes Horizontal Machining Center Model HS5A, 60 Tool ATC
1 Mitsui Seiki Simultaneous 4-Axes Horizontal Machining Center Model HS5A, with Automatic Pallet (APC), 60 Tool ATC

Other Automated or Specialized Equipment

1 Mitutoyo Coordinate Measuring Machine Model B-241 with HP-9836 Computer
Wiltron Model 560 Scalar Microwave Network Analyser
Wiltron Model 610D Microwave Sweep Generator

Conventional Machinery

Turning (Lathe)	1	Argon Welding
Milling	7	
Drilling	12	
Tapping	5	

Major Clients

Pratt & Whitney Canada	Canadian Arsenals	Canadair Ltd
Canadian Marconi Company	British Columbia Telephone	Northern Telecom
Bell Helicopter Textron	Manitoba Telephone	CERCOM
Raytheon Company	Saskatchewan Telephone	Teleglobe Canada
Spar Aerospace Division	Cegelec Industrie	Hydro-Quebec

Employees (1986) Total: 22
Engs. & Tech.: 4 **Shop personnel:** 16 **Admin.:** 2

Total Sales (1986) From \$1.5 to \$5 million

Plant Size 20,000 Sq. Ft.

2

4

GODFREY HOWDEN INC.



480, Montréal-Toronto Blvd
Lachine, Québec
H8S 1B8

Company founded in 1947

Contact: A. Dale Hunt, Exec. VP
Andrew J. McCammon,
Marketing Manager

Telephone: (514) 637-1122

Telex: 05-821568

Fax: (514) 636-0273

Capabilities

Design, manufacture, and repair and overhaul of hydraulic and pneumatic test stands. Manufacture, sales and service of aircraft air pressurization and conditioning systems, and ground support equipment. Represents, in Canada, Bauer Compressors and Zwick Energy de-icing and liquid nitrogen systems.

Quality Standards

DND: AQAP-1

Others: M.O.T.

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

Mechanical drafting system with 4 word stations and one E size platter.

Conventional Machinery

Full complement of turning and milling equipment

Close tolerance airborne R & O shops

Major Clients

Department of Material Defense (Canada)

Various Regional Airlines

Employees (1986) **Total:** 80

Engs. & Tech.: 10

Shop personnel: 52

Admin.: 18

Total Sales(1986) From \$5 to \$10 million

Plant Size 50,000 Sq. Ft.

HARBOUR INDUSTRIES CANADA LTD

460, Normandie Blvd
Farnham, Québec
J2N 1W4

Company founded in 1975

Contact: Mark Beauchamp, Vice-President
Marketing & Sales

Telephone: (514) 293-5304

Telex: 05-267686

Fax: (514) 293-5307

4

Capabilities

Manufacturing of high temperature and specialty wires and cables for commercial, industrial and military applications. Some of the insulating materials used are Teflon TFE, Teflon FEP, Teflon PFA, Kapton, Tefzel, Silicone Rubber, Mica, Ceramics, Kevlar, etc.

Quality Standards

DND: AQAP-4, AQAP-9

MIL: W-16878, A-22759, W-81381, C-17, C270 72, C-27500, C-55021/2A, W-8777,
W-81822, C-55021/3A

Commercial: Z-299.3 (CSA)

Major Clients

Bristol Aerospace
Canadian Marconi
CAE
Spar Aerospace

CDC Computing Devices
Leigh Instruments
General Dynamics
Canadian Armed Forces

Employees (1986) **Total:** 29

Engs. & Tech.: 3

Shop personnel: 19

Admin.: 7

Total Sales(1986) From \$1.5 to \$5 million

Plant Size 15,000 Sq. Ft.

HARRINGTON (DIV. INGERSOLL RAND CANADA INC.)



755, 1St Avenue
Lachine, Québec
H8S 2S7

Company founded in

Contact: Russell Gaham, General Manager
Tony Shataway, Sales Engineer

Telephone: (514) 637-2513

Telex: 058-22599

Fax: (514) 637-2513

Capabilities

Manufacturing of various aircraft parts such as manifold blocks, gear housings, engine brackets, nozzle boxes for engines, engine mount brackets, tracks for doors and many misc aircraft parts. Also involved in the making of numerous jigs & fixtures and tooling of aircraft parts. The company is further involved in the machining of all types of steel, bronze, aluminum, bars, etc., for a number of industries as well as in the building of tube forming machines, manual and automatic vail machines, bench and floor model swaging machines.

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

CAM Capabilities

Numerical Control Machine Tools

Cincinnati — CIM — X Machining Centre 2 Axes

Warner & Swasey ISC Single Spindle 2 Axes

Kearney & Trecker 2S3-30 Machining Centre 3 Axes

Charmilles / Andrew-Wire EDM Machine, Model 1515

Conventional Machinery

Grinding	7	Milling	3
Honing	1	Tube forming equipment	16
Turning (Lathe)	4	Sheet metal rolling	1

Major Clients

Canadian Arsenal

CAE Electronics

Sikorsky

Japan Airlines

Eastern Airlines

Boeing

McDonnell Douglass

Korean Airlines

Israel Aircraft

Pratt & Whitney Canada

Air Canada, etc.

Employees (1986) Total: 100

Total Sales (1986) From \$5 to \$10 million

Plant Size 55,000 Sq. Ft.

HÉROUX INC.

755, Thurber Street
Longueuil, Québec
J4H 3N2

Contact: Sarto Richer, President
Emile L. Desnoyers, V.-P. Marketing
Telephone: (514) 679-5450
Telex: 055-60630

Company founded in 1942

Capabilities

Heroux specializes in the design, development, manufacturing, repair and overhaul of aircraft landing gears, actuators, valves and cylinders. The company also offers capabilities in precision machining, metal finishing and electroplating.

Quality Standards

DND: AQAP-1, AQAP-4

Precision Machinery

Numerical Control Machine Tools

	Capacity
Dainichi MX95 CNC Lathe	37" × 118"
OKK 820 CNC Vertical Machining Center	78" × 32"
OKK 800 CNC Horizontal Machining Center	31" × 96"
OKK 800 CNC Horizontal Machining Center	31" × 86"
Kuraki CNC Horizontal Boring	55" × 63"
SNK CNC Profiler 3 Spindles	48" × 144"
Milwaukee-Matic Series EA Machining Center	49" × 16" table
Milwaukee-Matic Series EB Machining Center	26" × 16" table
Rambaudi Universal Mill	88" × 28" table
Leblond Lathe	26" × 72"
2 TOS FQH50A-P4 Machining Center	30" × 24" table
VDF Turning Center PNE 480L	19" × 62"
Profiler	78" × 240" table
Dainichi M-95 Lathe	37" × 157"
Milwaukee VB-4 Machining Center CNC	68" × 24" table
Milwaukee-Matic 180 Machining Center Horizontal	16" × 16" table (2)
2 Warner & Swasey CNC Model 2SC 15	26" O.D., 4½" I.D., 12" long.
Measuring table "Validator"	
Deephole Boring Machine — Model 030B	10" hole Dia. × 200" Deep

Conventional Machinery

Turning (Lathe)	23	Drilling	16
Milling	20	Internal Grinding	5
Boring	4	External Grinding	10
Honing	10	Surface Grinding	6
Profiling	8		

Major Clients

Canadair Ltd	Grumman Aerospace	US Navy
De Havilland Aircraft	US Airforce	Entwistle
McDonnell Douglas	US Army	Canadian
Boeing		Government

Employees (1986) Total: 399
Engs. & Tech.: 40 Shop personnel: 350 Admin.: 9

Total Sales(1986) From \$10 to \$50 million

Plant Size 133,000 Sq. Ft.

1

2

4

HOCHELAGA INC. (AÉROSPATIALE)



3675, Industrial Blvd
Laval, Québec
H7L 4V3

Contact: André Hamel, Vice-President
Telephone: (514) 629-3454
Telex: 056-62171
Fax: (514) 629-1655

Company founded in 1954

Capabilities

Precision machine shop specializing in crush grinding of valve spindles and other hydraulic systems, tools, gauges, landing gears. Hochelaga has also access to a design capabilities.

Quality Standards

DND: AQAP-1, AQAP-4

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

ELCAM EC. APT.

Numerical Control Machine Tools

4 CNC Lathe
4 CNC Machining Center
2 CNC EDM
1 CNC Grinder

Other Automated or Specialized Equipment

Hydraulic test stand

Conventional Machinery

Turning (Lathe) 16
Milling 10
Grinding 7

Major Clients

McDonnell Douglas
Cleveland Pneumatic
Boeing Aircraft

Employees (1986) Total: 97

Engs. & Tech.: 1

Shop personnel: 90

Admin.: 6

Total Sales(1986) From \$5 to \$10 million

Plant Size 17,000 Sq. Ft.

INNOTECH AVIATION ENTERPRISES LTD



Cargo Road "C"
International Airport Dorval, Québec
H4Y 1A6

Contact: Victor R. Bennett, President
W.R. Price, Vice-President
Telephone: (514) 636-8484
Telex: 05-821856

Company founded in 1955

Capabilities

General aviation sales. Modifications, maintenance, repair and overhaul of aircrafts, interior completion, etc. Military modifications for avionics and electronic Warfare installations.

Quality Standards

DND: AQAP-1, AQAP-4
Commercial: DOT 3-60

Major Clients

Department of National Defence (Canada)
Peoples Republic of China
Government of Malaysia

Employees (1986) Total: 500

Total Sales (1986) From \$50 to \$100 million

1

4

INTERNATIONAL CUTTING TOOLS INC.



10,833, Place Moisan
Montréal, Québec
H1G 4N6

Contact: Alfonso Minicozzi, President
Augusto Minicozzi, Executive V.-P.
Telephone: (514) 324-3720
Telex: 05-828658
Fax: (514) 324-9991

Capabilities

Design and manufacture of precision cutting tools for the aerospace industry.

The "International" product line includes a complete range of HSS and cobalt end mills, roughing end mills, drills and taps. In addition to the standard line I.C.T. designs and manufactures with the most advanced technology special application cutting tools to customer specifications or requirements.

A new roughing end mill the "Minicut", designed and patented world-wide by I.C.T. provides productivity benefits in the areas of difficult to machine alloys and high speed machining of light alloys.

Quality Standards

Others: NAS', ANSI', DIN

Precision Machinery

Numerical Control Machine Tools

- 1 Huffman HS-4 DNC Tool Grinders 8 Axes
- 2 Huffman HS-5 DNC Tool Grinders 5 Axes
- 3 Huffman HS-87P DNC Tool Grinders 7 Axes
- 1 Huffman HS-85P DNC Tool Grinders 5 Axes
- 1 Haro Polytronic 550 NC Grinder 3 Axes
- 1 Mori Seiki SL-5 CNC Lathe
- 1 Mori Seiki SL-3 CNC Lathe
- 4 Wyssbrod CNC Milling Machine 4 Axes
- 2 Bohle CNC Flute Master 3 Axes

Major Clients

The Boeing Aircraft Co.
McDonnell Douglas Corp.
Lockheed Corp.
General Dynamics
Northrop Corp.

Rockwell International Co.
Gulfstream American
Bell Helicopter
Grumman Aerospace

Employees (1986) Total: 200
Engs. & Tech.: 24 Shop personnel: 161 Admin.: 15

Total Sales(1986) From \$10 to \$50 million

Plant Size 60,000 Sq. Ft.

INTERNATIONAL THREAD INC.



10,137, London Street
Montréal-North, Québec
H1H 4H4

Contact: M. Michel Pugliese
Telephone: (514) 325-2862
Fax: (514) 324-5140

2

Company founded in

Capabilities

Precision machine shop specialized in the production of studs, flanges, bolts, eye bolts, bushings, nuts, screws, etc. for the aircraft, naval and military industries.

Quality Standards

DND: AQAP-4

MIL: S-7742, S-8879A, P-7105, S-21472, T-7738, T-8878A, etc...

Others: Canadair Ltd, PW & C, McDonnell Douglas

Precision Machinery

Numerical Control Machine Tools

1 Dainichi CNC Turret Lathe

Conventional Machinery

Turning (Lathe)	6
Threading	14
Internal Grinding	2
Cylinder Grinding	2
Surface Grinding	1

Major Clients

Pratt & Whitney Canada Inc.
Héroux
Air Canada
Ingersoll Rand

Employees (1986) Total: 11

Engs. & Tech.: 3

Shop personnel: 6

Admin.: 2

Total Sales(1986) N/A

Plant Size 5,000 Sq. Ft.

J.E. LORTIE CO. LTD



3160, de Rouen
Montréal, Québec
H1W 1K7

Contact: Michel Lortie, President
Michel Lamothe, Vice-President
Telephone: (514) 522-6038
Telex: 055-60429

Company founded in 1935

Capabilities

Manufacturing and development of specialized returnable transit containers for avionics and aircraft parts.

Quality Standards

DND: AQAP-9
Commercials: ATA 300 IATA T-5A

Major Clients

Air Canada	R.O.R. Assoc.
Canadian Pacific (CP Air)	Northern Telecom
Nordair	Falcon Jet Corp.
Wardair	Mitel Corp.
Canadian Marconi Co.	

Employees (1986) **Total:** 52
Engs. & Tech.: 2 **Shop personnel:** 40 **Admin.:** 10

Total Sales(1986) From \$1.5 to \$5 million

Plant Size 20,000 Sq. Ft.

J.L.M. USINAGE DE PRÉCISION INC.

75, Rotterdam
St-Augustin, Québec
G3A 1T1

Contact: Gaétan Jacques
Jean McCarthy
Telephone: (418) 878-4400

Company founded in 1977

Capabilities

High precision machining of aircraft parts and components.

Precision Machinery

Robotics

We design a number of robots.

Numerical Control Machine Tools

1 Mazak Vertical Quality Center VQC-20/40A

Other Automated or Specialized Equipment

Quality Control Equipment

Conventional Machinery

Two-axes digital readout equipment:

Turning (Lathe)	10	Hydraulic Press	1
Milling	7	Drilling	9
Honing	2	Vertical Saw	1
Radial Saw	1	Horizontal Saw	1
Surface Grinding	2	Disk Saw	1
Cylindrical Grinding	1	Quenching Furnaces	3
Mandrel Presses	2		

Major Clients

DND research centre, Valcartier
Menasco
Canadair Ltd

Employees (1986) Total: 31

Engs. & Tech.: 1

Shop personnel: 25

Admin.: 5

Total Sales(1986) From \$1 to \$1.5 million

Plant Size 9,600 Sq. Ft.

JOLY ENGINEERING LTD



8960, Park Avenue
Montréal, Québec
H2N 1Y8

Company founded in 1944

Contact: Phil Joly Sr., President
Dianne R. Tremblay

Telephone: (514) 387-6281

Telex: 05-827641

Fax: (514) 382-1967

Capabilities

Joly Engineering is a major supplier of commercial and military parts and components pertaining to navigational systems, nuclear missiles, flight controls, gas turbine, landing gears and armament. Joly had a design and manufacture responsibility for the Canadair CL-289 drone launching platform gear boxes and also assisted Canadair's CL-227 drone power transmission gear box. Typical products manufactured by Joly include precision gears, gyro and navigational systems components, landing gears, fuel system, hydraulic and structural members.

Quality Standards

DND: AQAP-1, AQAP-4, AQAP-9

MIL: 1-45208A and Q-9858A

Others: 18 Hellfire systems, tads aegies program

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

Fapt General Numeric Syst., P.G.

Dec Data System PDP11-03L Capacity 56K

Numerical Control Machine Tools

VMC 660 Vertimatic 4 Axes	1	HNC Hardinge Super Precision	
MM600 Milwaukee-Matic 4 Axes	1	Chucker	3
MM200 Milwaukee-Matic 4 Axes	1	CHNC Super Precision Lathe	3
OM-1 White Sundstrand 5 Axes	1	Swedturn, SMT Turning Center	1
350TCA DIXI 5 Axes	1	CHNC11 Hardinge	1
WM50 Wahli 4 Axes	1	Validator	1
Swedturn SMT, Control CNC 220 ...	1		

Conventional Machinery

Optical JIG Boring Machines	1	Surface Grinding Machines	1
Milling	40	Drilling Machines	15
High Precision Universal			
Grinding Machine	21		

Major Clients

Litton Systems	Martin Marietta	Jet Electronics
Menasco	Cleveland Pneumatic	Canadair Ltd
Pratt & Whitney Canada	Rotair Industries	Lucas Industries
General Electric	McDonnell Douglas	CAE Electronics
Rolls-Royce Canada	Computing Devices	Hughes Aircraft

Employees (1986) Total: 155

Engs. & Tech.: 5

Shop personnel: 135

Admin.: 15

Total Sales (1986) From \$10 to \$50 million

Plant Size 46,500 Sq. Ft.

KAYCOM INC.



5800, Thimens Blvd
St-Laurent, Québec
H4S 1S5

Contact: Brian March, General Manager
Telephone: (514) 745-5000
Telex: 055-66286
Fax: (514) 367-1369

Company founded in 1978

Capabilities

Kaycom Inc. specializes in the production of support material for the Canadian Armed Forces. The company is involved in the supply and manufacturing replacement parts and equipment pertaining to military transport and fighter aircrafts, ground vehicles and ships.

Quality Standards

DND: AQAP-4, AQAP-9
Commercial: DOT Approval

Precision Machinery

Conventional Machinery

Turning (Lathe)	1	Sheet Metal	4
Milling	1	Thread Grinding	4
Honing	1	Internal Grinding	4
Profiling	1	External Grinding	4
Drilling	2	Surface Grinding	4

Major Clients

Namsa (NATO)
Dept. National Defence
Dept. of Transport (UK)
Stanard Aero Eng.
Canadair Ltd

Employees (1986) Total: 25

Total Sales(1986) From \$5 to \$10 million

Plant Size 15,000 Sq. Ft.

1

4

KAYTRONICS INC.



200, Richmond Street
Ville St. Pierre, Québec
H8R 3Y8

Company founded in 1964

Contact: L. Kessler, President
N. Huber, Operations Mgr
Telephone: (514) 367-0101
Telex: 055-66286
Fax: (514) 367-1369

Capabilities

Sells electronic components and computer peripherals to Hi-Tech OEM's, dealers and Government Agencies.

Major Clients

Canadian Marconi Co.
Spar Aerospace
Canadair Ltd
Computing Devices

Northern Telecom
Mitel Corp.
Gandalf Ltd
Litton Systems

Bristol Aerospace
Sed Systems
Raytheon Canada
Microtel Ltd

Employees (1986) Total: 35

Engs. & Tech.: 15

Shop personnel: 3

Admin.: 17

Total Sales (1986) From \$10 to \$50 million

Plant Size 10,000 Sq. Ft.

LASALLE INSTRUMENT PARTS CO. LTD



821, Rang Kenney
Hemmingford, Québec
J0L 1H0

Contact: John Hess, President
Robert Traggit, Manager
Telephone: (514) 247-3522

Company founded in 1960

Capabilities

LaSalle Instrument manufactures precision components for various instruments, such as navigational devices and defence equipment. It produces small and medium size parts in large runs, but also supplies small quantities on short notice for prototypes. It specializes in precision parts, and will produce pieces with a tolerance of up to .0002.

Quality Standards

MIL: 14072

Precision Machinery

Conventional Machinery

Milling	4
Turning (Lathe)	11
Drill press	8
Engraver	1
Shearing Equipment	2

Major Clients

Canadian Marconi Company
Sperry Univac (Unisys)
CAE Electronics Ltd
Spar Aerospace Ltd

Employees (1986) **Total:** 14
Shop personnel: 12 **Admin.:** 2

Total Sales(1986) Under \$0.5 million

Plant Size 3,000 Sq. Ft.

2

4

LEESTA INDUSTRIES LTD



513, Lebeau Blvd
St-Laurent, Québec
H4N 1S2

Company founded in 1965

Contact: E.H. Staub, President
E.A. Staub, Jr VP Production
Telephone: (514) 334-2866
Telex: 055-62171 Mtl.

Capabilities

Leesta Industries as a designer & manufacturer of timing devices for banking security systems. R & D and design ability. Developed and acquired proprietary components for secondary flight control systems, hydraulic actuator assys, precision aerospace & engine parts, ball disconnect, gearboxes, etc.

Quality Standards

MIL: 9858
Commercials: D.O.T., P & W

Precision Machinery

Numerical Control Machine Tools — Major

Enshu 430 Machining Center (20 tools)
Hurco MB1 3 Axes
Hurco KMB1 3 Axes
Hurco KM1 MC Axes
Pantiggia Galaxy Turning Center 2 Axes graphic
Mori Seiki S13 Turning Center 3 Axes

Other Automated or Specialized Equipment

Internal Cylindrical Grinder
External Cylindrical Grinder (1 M)

Conventional Machinery

Honing	Milling
Profiling	Surface Grinder
Drilling	

Major Clients

DeHavilland Aircraft	Boeing Aircraft Co.
Pratt & Whitney	Rolls Royce
C.B.S. Ltd	Menasco
Canadair Ltd	Lockheed

Employees (1986) Total: 18
Engs. & Tech.: 2 Shop personnel: 14 Admin.: 2

Total Sales(1986) From \$1.5 to \$5 million

Plant Size 3,000 Sq. Ft. — New plant: 13,800 Sq. Ft.

LEGO PLATING INDUSTRIES LTD



6890, Couture Blvd
St-Léonard, Québec
H1P 2W6

Contact: Richard Lee, President
Emma Quon, Vice-President
Telephone: (514) 323-4131

Company founded in 1969

Capabilities

Electroplating for chrome, cadmium, copper, tin, electroless nickel, nickel, bronze, phosphate, passivate, silver.

Quality Standards

DND: AQAP-4

Others: Boeing, Sikorsky, Fairchild, McDonnell Douglas Aircraft, Grumman, Rolls-Royce, Canadair Ltd, De Havilland, CAE.

Major Clients

Heiplex
Menasco
Canadair Ltd
Westinghouse MFG.
Dowty Equipment of Canada
Aero Machining
Allied Bendix Avelex Inc.
Cegelex Inc.
Chicopee MFG.

Harrington
Anderson Metal Ind.
Aerospatiale Hochelaga Inc.
C.P.S. Industries
Boeing Canada
Ideal Equipment
Joly Engineering
Vicom
Wilson Machine Co.

Employees (1986) Total: 40

Total Sales(1986) From \$1.5 to \$5 million

Plant Size 8,000 Sq. Ft.

LHOTELLIER CANADA INDUSTRIES



580, boul. du Séminaire Sud
St-Jean-sur-Richelieu, Québec
J3B 7E3

Contact: Iain Boyd, Sales Representative
Telephone: (514) 348-6126
Fax: (514) 348-8668

Company founded in 1980

Capabilities

Lhotellier Canada Industries (LCI) was formed from the merger of Metcon Container Products, a small canadian manufacturer of MIL-SPEC cases, with the canadian subsidiary of the European based group Lhotellier Montrichard. Lhotellier Montrichard with 1200 people in Europe is the largest company in the world in its specialized field of containers, packing and packaging for the Military/Aerospace markets.

LCI produces in Canada for the North American market, a standard range of rotomoulded shipping and storage containers, as well as containers for specific programs such as for missiles or other highly sensitive equipment.

LCI has the capability to technical support aerospace companies during critical proposal and engineering development phases, to design (supply DIDS packages if necessary).

Quality Standards

DND: AQAP-4

Precision Machinery

Other Automated or Specialized Equipment

Specialized machinery for cutting and welding of low density foams.

Major Clients

Department of National Defence (Canada)
Bendix Avelex
Spar Aerospace
Canadair Ltd

Oerlikon Aerospace
Northern Telecom
Bell Canada

Employees (1986) **Total:** 10
Engs. & Tech.: 3 **Shop personnel:** 5 **Admin.:** 2

Total Sales(1986) From \$0.5 to \$5 million

Plant Size 15,000 Sq. Ft.

LION RUBBER & PLASTICS LTD



0140, Clément Street
LaSalle, Québec
H8R 1T2

Company founded in 1952

Contact: S. Kastner, President
Y. Lamarre, General Manager
Telephone: (514) 366-2170
Telex: 055-66274

Capabilities

Lion Rubber & Plastics is a rubber company specializing in moulded rubber parts. It produces rubber bonded to metal. Lion Rubber & Plastics mixes all its own rubber, has a fully equipped laboratory, and can meet most specifications.

Major Clients

Bombardier
Canadair Ltd
Bristol Aerospace Ltd

Pratt & Whitney Canada Inc.
Peacock Inc.

Employees (1986) **Total:** 80
Engs. & Tech.: 3 **Shop personnel:** 65 **Admin.:** 12

Total Sales(1986) From \$1.5 to \$5 million

Plant Size 50,000 Sq. Ft.

LUCAS INDUSTRIES CANADA LTD

AEROSPACE DIVISION



5595, Royalmount Avenue
Town of Mount Royal, Québec
H4P 1J9

Company founded in 1949

Contact: Russ Woodland, Gen. Mgr
Alex Howells
Eng. & Tech. Sales Manager

Telephone: (514) 735-1536

Telex: 055-61115

Fax: (514) 342-2047

Capabilities

Designs and manufactures gas turbine fuel pumps and controls, hydraulic controls, actuators, etc. Provides overhaul service for engine fuel pumps and accessories, D.C. starters, starter generators, D.C. and A.C. generators and regulators, air valves, LP air starters, alternators, ignition units, relays and industrial engine accessories.

Quality Standards

DND: AQAP-4

MIL: 9858A

Others: D.O.T. (FAA Rep. in Canada)

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

FANUC 61 Control

Numerical Control Machine Tools

Monarch VMC-75 Machining Centre 4 Axes

Nakamura Tome Model TMC-3B (Lathe) 2 Axes

Edlund NL 15 Spindle

Conventional Machinery

Turning (Lathe)	14	External Grinding	8
Milling	6	Surface Grinding	2
Honing	3	Lapping	4
Drilling	7		

Major Clients

Pratt & Whitney Canada Ltd
Boeing Commercial Airplane Co
Avco-Lycoming
General Electric
Lockheed
Canadair Ltd

DeHavilland Aircraft of Canada
Rolls Royce Canada Ltd
Department of National Defence
U.S. Military
Bell Helicopter

Employees (1986) Total: 100

Engs. & Tech.: 10

Shop personnel: 65

Admin.: 25

Total Sales(1986) From \$5 to \$10 million

Plant Size 54,000 Sq. Ft.

M.R. LTD (SOCIÉTÉ D'OUTILLAGE)



5710, Donahue Street
St-Laurent, Québec
H4S 1C1

Contact: Michel Floriant, President
Telephone: (514) 336-5182

Company founded in 1971

Capabilities

Precision machine shop, specializing in tools and dies. It also produces aircraft parts.

Quality Standards

Commercial: Canadair Ltd, Rolls-Royce, CGE

Precision Machinery

Numerical Control Machine Tools

Ex-Cell-O 603 (2) 3 Axes

Conventional Machinery

Turning (Lathe)	8	Drilling	13
Milling	20	Sheet Metal	2
Boring	1	Internal Grinding	1
Honing	1	External Grinding	1
Profiling	1	Surface Grinding	4

Major Clients

Pratt & Whitney Canada
Canadair Ltd
Rolls-Royce Canada
CAE
Asea Industries
B.C. Medical
CRIQ
Cercast
Cosmair Canada
Electromed Inter.
I.E.C. Holden
Ivaco Rolling Mills
Petro Canada
Promecam Co.

Rader Canada
Rite Pro
Shell O Matic
Silonex
Supreca
Technitrol CDA
Thermoreacteurs Sunkiss
Traction Specialite
University of Montreal
Vac Aero Inter.
Welflite Industries
CGE (Canadian General Electric)
World Aerospace Market

Employees (1986) Total: 32

Total Sales(1986) From \$1 to \$1.5 million

MACOT LTD (USINAGE DE PRÉCISION)



8420, 9th Avenue
Montréal, Québec
H1Z 2Z3

Contact: Jérôme Gagnon, President
Telephone: (514) 727-3519

Company founded in 1966

Capabilities

Precision machining of aircraft parts.
General precision machining.

Precision Machinery

Numerical Control Machine Tools

1 CNC Hardinge Lathe, 3 Axes

Conventional Machinery

Lathes	5	External Grind	2
Milling	2	Surface Grind	1
Honing	1	Tool and Cutter	1
Internal Grind	1	Drill	1

Major Clients

Menasco
Lucas

Employees (1986) Total: 4
Shop personnel: 3 Admin.: 1

Total Sales (1986) Under \$0.5 million

Plant Size 2,500 Sq. Ft.

MARINE AEROSPACE MFG LTD



3495, Côte Vertu West
St-Laurent, Québec
H4R 1R3

Contact: F.L. Far, President
Telephone: (514) 331-0780
Telex: 05-824020
Fax: (514) 331-3768

Company founded in 1985

Capabilities

Specializes in the integrated manufacture of critical mechanical — hydraulic submarine components and ancillary and mechanical components for the aerospace industry. Functional and non-destructive testing of the aforementioned components are performed "in house". Services included in the firm's capabilities are as follows:

- Radiography — cobalt and iridium sources
- Magnetic Particle Inspection — wet and dry method
- Liquid Penetrant Inspection
- Full painting with bake cure facility along with teflon coating
- Heat treatment to 1 800° F

Quality Standards

DND: AQAP-2

MIL: 9858A, 45208A

Others: Level 1 Sub Safe, CSA — Z299-2

Precision Machinery

Numerical Control Machine Tools

- 2 Cintimatic Drill 1975
- 1 Milwaukee Matic Machining Center 1975
- 1 Mori Seiki CNC Lathe, model SR-5
- 1 OKK MCU-520 Vertical Machining
- 1 Le Blond wire-guided electrical discharge machine

Conventional Machinery

Turning (Lathe)	27	Sheet Metal	5
Milling	12	Thread Rolling	2
Honing	3	External Grinding	1
Profiling	1	Surface Grinding	2
Drilling	4	Horizontal Boring Mill	5

Employees (1986) Total: 71

Engs. & Tech.: 10

Shop personnel: 50

Admin.: 11

Total Sales(1986) From \$5 to \$10 million

Plant Size 194,000 Sq. Ft.

2

4

MDM PRECISION LTD



61, Jacques-Cartier
Ste-Catherine, Québec
G0A 3M0

Contact: Michel Masson, President
Telephone: (418) 875-4172

Company founded in 1973

Capabilities

Machine shop specializing in fixtures and tooling for production.

Precision Machinery

Conventional Machinery

Grinding	10
Jigbore	2
Milling	8
Turning (Lathe)	7
Honing	2

Major Clients

Pratt & Whitney Canada
General Electric

Employees (1986) **Total:** 10
Shop personnel: 8 **Admin.:** 2

Total Sales (1986) From \$0.5 to \$1 million

Plant Size 5,000 Sq. Ft.

MESOTEC INC.



P.O. 15, J.-Cartier Branch
Sherbrooke, Québec
J1J 3A9

Contact: Paul Constancis, President
Alex Moraru, Vice-President
Telephone: (819) 822-2777
Fax: (819) 822-4117

Company founded in 1977

Capabilities

Manufacturing of aerospace parts and tooling. Design and manufacturing of precision jigs and rubber molds. The company is also involved in welding as well as in precision machining and assemblies.

Quality Standards

DND: AQAP-4
MIL: I-45208A

Precision Machinery

Numerical Control Machine Tools

Bridgeport Serie 1, 3 Axes
Machining Center
CNC Lathe

Other Automated or Specialized Equipment

EDM Agie Puls
Optical comparator 30"
Bridgeport copying milling

Conventional Machinery

Turning (Lathe)	3	Drilling	2
Milling	7	Cylinder (external and internal) Grinding	1
Boring (65" dia. capacity)	1	Surface Grinding	3
Honing	1	Jig Borer/Jig Grinder	1
Band Saw	2		

Major Clients

Canadair Ltd
Air Canada
Pratt & Whitney Canada
General Electric

Combustion Engineering
I.B.M.
Waterville

Employees (1986) Total: 40
Engs. & Tech.: 8 **Shop personnel:** 31 **Admin.:** 1

Total Sales(1986) From \$1.5 to \$5 million

Plant Size 8,000 Sq. Ft.

2

4

METCOR INC.



10,600, Secant Street
Anjou, Québec
H1J 1S5

Company founded in 1945

Contact: Ivan Roch, President
Réal Lafrenière
Telephone: (514) 353-1500
Telex: 05-828835
Fax: (514) 353-2648

Capabilities

Metcor Inc. offers Heat Treating services to the Aerospace industry. The various type of furnaces includes salt baths, pots atmosphere furnaces, induction machines and salt baths nitriding called Melonite.

Quality Standards

DND: AQAP-1
MIL: H-6875
Others: B.M.

Major Clients

Boeing of Canada	Canadian Pratt & Whitney
McDonnell Douglas Canada (McAir)	De Havilland Aircraft
Canadair Ltd	GM
Menasco	

Employees (1986) Total: 72
Engs. & Tech.: 7 **Shop personnel:** 45 **Admin.:** 20

Total Sales (1986) From \$5 to \$10 million

Plant Size 32,000

METRO MACHINING CORPORATION



7926, 15th Avenue
Montréal, Québec
H1Z 3N6

Company founded in 1972

Contact: Bernard Coursimault, President
Claude Bouchard, Manager
Telephone: (514) 324-0791
Telex: 05-25575

2

Capabilities

The company is mainly involved in the machining of various structural aircraft parts. It also manufactures tooling and performs small and medium size assemblies for the industry.

Quality Standards

DND: AQAP-4
MIL: 1-45208A, COAR-10, Mil STD 45662

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

CAD System: 1) NCCS Programming system — Hardware (digital) — (Micro VAX II)
2) ELAN Programming system — Hardware (HP)

Numerical Control Machine Tools

NC Lathe Mori Seiki SL-SH (Z) 42" (X) 12.2" Swing-Bed = 24.4"
OKK 820, 3 Axes (X) 62" (Y) 32" (Z) 24" Travel
Cincinnati Milacron 3 Axes (X) 80" (Y) 26" (Z) 24" Travel
Cincinnati Milacron 5 Axes (X) 80" (Y) 30" (Z) 24" Travel
SNK 3 Spindles 3 Axes (X) 120" (Y) 48" (Z) 24" Travel

Other Automated or Specialized Equipment

Cincinnati profiler 144" × 48" Travel
Milwaukee profiler, H Kearney 96" × 48" Travel
Maserati profiler 65" × 20" — Gray profiler 65" × 20" Travel

Conventional Machinery

Lathe	7	Interior Grinder	1
Milling	10	Exterior Grinder	1
Honing	1	Jig-Bor	1
Drill Press	3		

Major Clients

McDonnell Douglas Canada (McAir)	Department of National Defense (Canada)
Pratt & Whitney Canada	Automatec
Canadair Ltd	Eastern Steel Casting
U.D.T. Industries Inc.	

Employees (1986) Total: 40
Engs. & Tech.: 6 **Shop personnel:** 30 **Admin.:** 4

Total Sales (1986) From \$1.5 to \$5 million

Plant Size 12,000 Sq. Ft.

MICROMATIQUE INC. (PIÈCES DE PRÉCISION)



137, St-Ferdinand, #181
Montréal, Québec
H4C 2S6

Contact: Dan De Luca
Telephone: (514) 932-3984

Company founded in 1963

Capabilities

Micromatique specializes in the high precision machining of extremely small parts for the aeronautical industry. It includes spacers washers, nails, screws, spring seats, pins, plungers, key locking devices, poppets and bushings. With a production capacity of 1-2000 parts, the company has plans to expand gradually over the next few years.

Precision Machinery

Conventional Machinery

Horizontal Milling	2	Honing	1
Turning (Lathe)	6	Surface Grinding	1
Centerless Grinding	1	Drilling	2

Major Clients

Menasco Aerospace Ltd
Pratt & Whitney Canada Inc.
Federal Pioneer Ltd

Employees (1986) **Total:** 4
Shop personnel: 3 **Admin.:** 1

Total Sales (1986) Under \$0.5 million

Plant Size 1,500 Sq. Ft.

MICRON AUTOMATIC PRODUCTS INC.



10,790, Edger Street
Montréal-North, Québec
H1G 4Z8

Contact: Claude Vignoto, President
Telephone: (514) 325-9285

Company founded in 1974

Capabilities

Manufacturer of small precision parts and screw machine products.

Precision Machinery

Numerical Control Machine Tools

Nomura CNC swiss type screw machine

Conventional Machinery

Turning (Lathe)	2	Honing	1
Milling	1	Drilling	3

Major Clients

Canadian Marconi Co.
Bendix Avelex
Northern Telecom

Employees (1986) Total: 6

Total Sales(1986) Under \$0.5 million

Plant Size 3,000 Sq. Ft.

MICROTECHNICA



1260, Richmond Street
Montréal, Québec
H3K 2H2

Contact: Rafael Ramirez, President
Telephone: (514) 989-1126
Fax: (514) 989-1148

Company founded in 1979

Capabilities

Microtechnica manufactures scale models for American and Canadian companies as promotional tools at trade shows and high-level presentations. It is through animation that they facilitate the understanding of sophisticated Aerospace and Defence equipment.

Other products: Design and manufacture of:

- Micro-Robotics
- Wind tunnel test models
- Mechanical prototypes
- Film industry models and set-ups

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

Product design and programming, assisted by AutoCad and various Softwares

Other Automated or Specialized Equipment

Mitutoyo electronic measurement tool set

New-Hermes engraving pantographer

Conventional Machinery

Turning (Lathe)	3	Turbine Compressor 5 H.P.	1
Milling	2	Sanding Machines	4
Various Saws	6	Sand Blast Booth	1
Drill Press	3	Metal Sheet Bender	1

Major Clients

General Electric Company
F.M.C.
Canadair Ltd
Spar Aerospace Ltd
Eaton Aerospace

Boeing Vertol
Pratt & Whitney Canada
CAE Electronics
Canadian Broadcasting Corp.
Formule Tag

Employees (1986) Total: 12

Engs. & Tech.: 2

Shop personnel: 7

Admin.: 3

Total Sales(1986) From \$0.5 to \$1 million

Plant Size 3,000 Sq. Ft.

MITEC ELECTRONICS LTD



104, Gun Avenue
Pointe-Claire, Québec
H9R 3X3

Company founded in 1972

Contact: M. Bentob, President
G. Cappelli, VP Engineering
Telephone: (514) 694-6666
Telex: 510-101-2790
Fax: (514) 694-3814

Capabilities

Mitec designs and manufactures microwave components, subsystems and integrated networks for use in telecommunications and defence systems operating in the 1-60 GHz range. It provides its customers with "custom designed" microwave products. Mitec's main products are: Earth Station Uplink & Downlink Assemblies, Switching/Combining Networks, Control Panels, High Power Amp. Waveguide Arms, Variable Power Combiners, Waveguide Subsystems, Multi-Port and Multi-Band Antenna Couplers, Tx-Line Systems in Circular and Rectangular Waveguides, Filters, Equalizers, Diplexers, Power Combiners, Hybrids, Circulators (Low and High Power), Isolators, Attenuators, Terminations (Low and High Power), Couplers, Adaptors, Transitions, Flexible and Twistable Waveguide Assemblies, Rigid Waveguide Components, Coaxial Components, Integrated "Custom Made" Tx Waveguide Components.

Quality Standards

DND: AQAP-4
MIL: I-45208A, STD-105
Others: AQAP-4; EIA Standards

Precision Machinery

Numerical Control Machine Tools

3 Hurco

Other Automated or Specialized Equipment

Network Analyzers
Network Phase & Magnitude Measuring System
Sweep Oscillators

Conventional Machinery

Turning (Lathe)

Milling

Arc Welders

Hydraulic Presses

Drilling Presses

Shear

Major Clients

Northern Telecom Canada Ltd
MCI Telecommunications Corp.
Hughes Aircraft Company
Harris

Andrew Corporation
GTE International Systems Corp.
Ford Aerospace Ltd
Spar Aerospace Ltd

Employees (1986) Total: 100
Engs. & Tech.: 10 **Shop personnel:** 70 **Admin.:** 20

Total Sales (1986) From \$5 to \$10 million

Plant Size 33,000 Sq. Ft.

MODELERIE AERO ENRG.



120, Industrial Blvd
Boucherville, Québec
J4B 2X2

Contact: Jean Montpetit, General Manager
Telephone: (514) 641-1770

Company founded in 1984

Capabilities

Precision machine pattern shop, manufacturing tooling models for investment casting by chemical sand, plaster, etc.

Precision Machinery

Conventional Machinery

Turning (Lathe)	2
Milling	4
Drilling	5

Major Clients

Haley Industries
Robert Mitchell Co.
General Electric

Hitchcock Foundries
Watkins Patterns
Wellman Dynamics

Employees (1986) Total: 17

Total Sales(1986) Under \$0.5 million

Plant Size 12,500 Sq. Ft.

2

3

MONTREAL PRECISION CRAFTING CO. LTD



797, Lajoie Street
Dorval, Québec
H9P 1G7

Contact: Gerry Mancini, President
Paolo Mancini, Director
Telephone: (514) 636-0825

Company founded in 1969

Capabilities

General and precision machining, aircraft tooling and components, custom built machinery.

Quality Standards

DND: AQAP-9
Others: D.O.T., P & WC

Precision Machinery

Conventional Machinery

Turning (Lathe)	4	Drilling	4
Milling	3	Saw Vertical	2
Surface Grinding	1	Welding Tig Same Automatic	1

Major Clients

Department of National Defence (Canada)	C.X.A.
Pratt & Whitney Canada	Forest Engineer Institute of Canada
Noranda Research	Montreal Neurological Institute
Department of Transport	

Employees (1986) Total: 12
Engs. & Tech.: 1 **Shop personnel:** 9 **Admin.:** 2

Total Sales(1986) Under \$0.5 million

Plant Size 5,900 Sq. Ft.

M.P.B. TECHNOLOGIES INC.



1725, North Service Road
Trans-Canada Hwy
Dorval, Québec
H9P 1J1

Company founded in 1976

Contact: Dr. M.P. Bachynski, President
Dr. F.G.R. Warren, Vice-President
Telephone: (514) 683-1490
Telex: 05-823509
Fax: (514) 683-1727

Capabilities

Development and custom manufacturing of special communication equipment (multiplexing), radar and remote sensing equipment. M.P.B. also manufactures CO₂ lasers and associated products, high quality graphics and other specialized digital equipment for broadcasting and sporting (olympics) events. The company is also involved in laser communication systems, space electronics, fusion technology and software development.

Quality Standards

DND: AQAP-1, AQAP-4

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

Mentor graphics/Apollo workstations for VLSI, printed circuit and microwave circuit design
Microprocessor development systems for Intel and other processors
PDB11/73, VME 1131, PC/AT and other computer systems
Access to CYBER and GRAY computers
Glass blowing shop
Device prototyping facility
Extensive electromagnetic measurement facilities
Reliability & environmental test laboratory

Major Clients

Hughes Aircraft Co.	Teleglobe Canada
Hydro Quebec	Atmospheric Environment Service
Radio Canada	Federal and Provincial Governments

Employees (1987) Total: 117

Total Sales(1987) From \$9.0 million

NARDEUX CANADA LTÉE



140, boul. Dion, B.P. 40
Matane, Québec
G4W 3M9

Company founded in 1983

Contact: Peter Gasser, Directeur Général
Joe Rodrigues, Directeur Produit
Telephone: (514) 636-8986
Telex: Via New York 7601138 NXCA UC

Capabilities

Nardeux Canada Ltée designs, manufactures and supplies full lines of HF-SSB fixed stations and VHF-AM fixed stations and mobile radiocommunication equipment for the aviation industry. Build to print subcontracts manufacturing. Custom design work in electronics, software, mechanical packaging, etc, at systems and subsystems level.

Quality Standards

DND: AQAP-4
MIL: D.O.T.

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

Autocad

Conventional Machinery

Standard electronic test equipment for testing RF, analog and digital equipment
Basic mechanical inspection equipment
Environmental temperature test chamber

Major Clients

Ministry of Transport Canada

Employees (1986) Total: 18
Engs. & Tech.: 4 Shop personnel: 10 Admin.: 4

Total Sales (1986) \$800,000

Plant Size 20,000 Sq. Ft.

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4

NITREX METAL INC.



3480, Poirier Blvd
St-Laurent, Québec
H4R 2J5

Company founded in 1984

Contact: Michel J. Korwin, President
Jan Siedlikowski, Sales Dir.
Telephone: (514) 333-8360
Telex: 05-25134 Mtl
Fax: (514) 861-5571

Capabilities

The company has developed a new patented controlled gas nitriding process. Facilities include a fully automated retort type furnace suitable for working pieces up to 27" in diameter and 60" in height. Nitrex has been in full commercial operation since January 1986 specialising in mechanical components for commercial as well as aerospace and defence applications.

Main products treated are: power transmission gears, pinion shafts, landing gear components, wing assembly components, hydraulic pump and motor components, distribution gears, pressure regulating valves, gearbox components and many others including various tooling requirements.

Familiar with special alloys and all designations used for aerospace applications, the company has R & D facilities for the purposes of conducting tests on various materials to be nitrided.

Quality Standards

MIL: S-6090, STD-1876 (AT), H-6875

Others: D.O.T., GE, Canadair Ltd, AMS 2756

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

1 Modicon programmable logic controller for use in all steps of gas nitriding process

Other Automated or Specialized Equipment

1 Leco Vickers Hardness Tester Model V-100A

Full Lab facilities for cutting, mounting, polishing, etching

1 American Optical Microstar microscope with photo attachment for metallography

Conventional Machinery

1 Electric furnace with Inconel 600 retort insert

1 Ammonia Dissociator

1 Turntable spray washer

1 Inconel 600 spare retort for continuous production

Major Clients

Canadair Ltd

CAE Electronics Ltd

Lockheed-Georgia

Department of National Defence (various sub-contractors)

Employees (1986) Total: 8

Engs. & Tech.: 4

Shop personnel: 2

Admin.: 2

Total Sales(1986) Under \$0.5 million

Plant Size 5,250 Sq. Ft.

NOORDUYN NORSEMAN INC.



6200, Henri-Bourassa West
St-Laurent, Québec
H4R 1C3

Company founded in 1952

Contact: Earle Latrémouille, Gen. Mgr
Pierre Latrémouille, Controller
Telephone: (514) 334-3210
Telex: 05-824222
Fax: (514) 334-2989

Capabilities

Manufacturers of galleys, galley equipment (trolleys, food carriers) baby cots, stretchers, cargo handling equipment (tie-downs, nuts, etc.). Repair and overhaul of aircraft components. Distributor of all types of aircraft hardware.

Quality Standards

DND: AQAP-4, AQAP-9
MIL: 45208A
Commercial: D.O.T.

Precision Machinery

Conventional Machinery

Turning (Lathe)	5	Brake	2
Milling	3	Saws	5
Honing	1	B/E Swagger	1
Metal fabricator	2	Sewing	5
Hydraulic shear	1	Welder (Tig)	3
Hydraulic press	1	Spray paint	1
Punch press	1	Booth	1
Spotwelder	2	Sand blasting	1

Major Clients

Air Canada	Via Rail
Wardair	Nordair-Metro (Quebecair)
Innotech Aviation	Jordanian Airlines
DND	Boeing Airplane Co.
Canadian Marconi	Lockheed A/C California
Canadair Ltd	Japan Airlines
CAE Electronic	Nationair
Pratt & Whitney Canada	Alitalia
Air Jamaica	Swissair
Canadian Pacific	

Employees (1986) Total: 60
Engs. & Tech.: 5 **Shop personnel:** 50 **Admin.:** 5

Total Sales (1986) From \$1.5 to \$5 million

Plant Size 40,000 Sq. Ft.

NORPRECISION INC.



10,141, London Street
Montréal-North, Québec
H1H 4H4

Company founded in 1962

Contact: Jean Prigent, President
Fulgencio Anton, Vice-President
Telephone: (514) 321-2272
Fax: (514) 321-5833

2

Capabilities

Precision machine shop making parts for the aerospace and military industries.

Quality Standards

DND: AQAP-1, AQAP-4

Precision Machinery

Conventional Machinery

Turning (Lathe)	7	Drilling	2
Milling	6	Internal Grinding	2
Honing	1	External Grinding	2

Major Clients

Rolls-Royce Canada
Pratt & Whitney Canada
Lucas Aerospace

Menasco
Canadian Marconi Co.
Cercast

Employees (1986) Total: 7

Total Sales(1986) From \$0.5 to \$1 million

Plant Size 5,000 Sq. Ft.

OERLIKON AEROSPACE INC.



225, Séminaire Blvd, South
Saint-Jean-sur-Richelieu, Québec
J3B 8E9

Contact: Werner Oesch, Director
for Business Development
Telephone: (514) 358-2000
Fax: (514) 358-1744

Company founded in 1986

Capabilities

Oerlikon Aerospace Inc., a newly-established Canadian subsidiary of Oerlikon-Buehrle Ltd of Switzerland, is responsible for the production of the ADATS air defence missile system, the centerpiece of a new Low Level Air Defence (LLAD) system to enter service with the Canadian Armed Forces in 1988.

Quality Standards

DND: AQAP-1, AQAP-4, AQAP-6, AQAP-13
MIL: 0-9858A, 1-95208A, STD-45662, 5-52779A

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

CAD/CAM interactive release 20.1.1 with geometry interface module.

Major Clients

The Canadian Government

Employees (1986) **Total:** 163
Engs. & Tech.: 81 **Shop personnel:** 8 **Admin.:** 74

Total Sales(1986) N/A operations in 1986

Plant Size 80,000 Sq. Ft.

1

4

OMNISPEC PLATING INC.

5790, Vanden Abeele
Montréal, Québec
H4S 1R9

Contact: Brian Millward, President
Brian Stocks, Vice-President
Telephone: (514) 333-7616

Company founded in 1969

Capabilities

SPECIFICATION FINISHING, PLATING AND PAINTING

Cadmium	QQ-P-416
Chemical Film	MIL-C-5541
Chromic Anodize	MIL-A-8625
Copper	MIL-C-14550
Electroless Nickel	MIL-C-26074
Gold	MIL-G-45204
Passivate	QQ-P-35
Silver	QQ-S-365
Sulphamate Nickel	AMS 2401
Sulphuric Anodize	MIL-A-8625

Quality Standards

DND: AQAP-4 (DND 1016)

Major Clients

Bell Helicopter Textron	Honeywell Controls
Boeing Int.	Lucas Industries
Canadair Ltd	Martin Marietta
Canadian Marconi	Northern Telecom
Cleveland Pneumatic	Pratt & Whitney Canada
E.C.I. (E Systems)	Rolls-Royce
Garrett Manufacturing	Vickers Can.
C.A.E. Electronics	Westinghouse

Employees (1986) Total: 25
Engs. & Tech.: 3 **Shop personnel:** 18 **Admin.:** 4

Total Sales (1986) From \$1 to \$1.5 million

Plant Size 8,000 Sq. Ft.



OPTIMUS LTD (NON DESTRUCTIVE EXAMINATIONS)

1300, St-Patrick Street
Montréal, Québec
H3K 1A4

Contact: Bernard H. Bilodeau, President
Richard McCrory, Manager
Telephone: (514) 931-6061

Company founded in 1983

Capabilities

Optimus Ltd was formed in October 1983 by the purchase of Williams & Wilson's N.D.T. facilities. These facilities had been in operation since 1954 providing magnetic particle and liquid penetrant services. The range of services has now been expanded to include radiography and ultrasonics. Optimus Ltd provides a complete source of non destructive examinations for all industries that cannot support a fully equipped facility. All employees follow a training program that meets or exceeds requirements of MIL-STD-410, SNT-TC-1A and C.G.S.B.

Quality Standards

DND: (ND) D-12-020-001/SF001

MIL: STD453, 1949, 6866, 2175, 2154

Commercials: CSA Z299.3, ASME NC 3800 (P & W, McD-D etc.)

Precision Machinery

X-RAY EQUIPMENT AND RELATED ACCESSORIES

- 150 + 300 KV C.P.
- Gamma Ray Ir. 192 Co. 60
- Automatic Processor

ULTRASONIC

- A Scan

MAGNETIC PARTICLE

- 4,000 and 6,000 amps stationary units

PENETRANT

- Water washable and post emulsified fluorescent
- Visible

CLEANING

- Vapor degreasing
- Detergent
- Chemical etching

LIFTING EQUIPMENT

Three (3) ton overhead crane

Major Clients

Most aerospace sub-contractors in Canada dealing with Pratt & Whitney Canada, McDonnell Douglas, Boeing, Martin Marietta, etc.

Employees (1986) Total: 14

Shop personnel: 11

Admin.: 3

Total Sales(1986) From \$0.5 to \$1 million

Plant Size 6,000 Sq. Ft.

PARAMAX ELECTRONICS INC.

6111, Royalmount Avenue
Montréal, Québec
H4P 1K6

Company founded in 1983

Contact: G.M. Zutler, President
J.C. Henry, Marketing Dir.
Telephone: (514) 340-8310
Telex: 05-824142
Fax: (514) 340-8448

Capabilities

As a subsidiary of Unisys Corporation, Paramax is involved in systems management and systems integration for large scale automated electronic control systems. The company is currently under contract to provide combat and electronic systems for Canadian Patrol Frigates. It will also be systems integrator for the EH-101 anti-submarine helicopter.

Quality Standards

DND: AQAP-1

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

Computer Vision CDS 4001 CAD Computer

Other Automated or Specialized Equipment

UNIVAC 1100/72 Mainframe Computer

Access to UNIVAC 1100/92, 1100/82, 1100/73 Mainframe Computers

200 Micro Computers and Personal Computers

Optical Scanning and Retrieval System (OSAR), by File Net

Major Clients

Saint John Shipbuilding Ltd for Canadian Patrol Frigate Combat and Electronic Systems.

Employees (1986) Total: 450	Shop personnel: 0	Admin.: 100
Engs. & Tech.: 350		

Total Sales(1986) Over \$100 million

Plant Size 160,000 Sq. Ft.



PATENAUDE INDUSTRIES INC.



10,794, Lajeunesse
Montréal, Québec
H3L 2E8

Contact: Jacques Patenaude, President
Jacques Trudeau, Manager Prod.
Telephone: (514) 384-0540

Company founded in 1951

Capabilities

Precision profiling and profile milling. Manufacturer of aircraft parts, assemblies, tooling and sculptured metal.

Quality Standards

DND: AQAP-1, AQAP-4
MIL: 9858A, 45208A

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

Fanuc, System P, Model G

Numerical Control Machine Tools

3 OKK MCV-410 Machining Center
1 OKK MCV-800 Machining Center
1 OKK MCV-820 Machining Center
1 OKK MCV-630 Machining Center

Conventional Machinery

Profilers 7
Milling 9

Major Clients

McDonnell Douglas
Boeing
Canadair Ltd
De Havilland
Grumman

Employees (1986) Total: 40
Engs. & Tech.: 7 Shop personnel: 30 Admin.: 3

Total Sales(1986) From \$1.5 to \$5 million

Plant Size 21,250 Sq. Ft.

PLASTAL (DIVISION OF AVCORP INDUSTRIES INC.)



840, Vadnais Street
Granby, Québec
J2J 1A7

Contact: Mike E. Artus, President
Telephone: (514) 378-8439
Fax: (514) 378-8699

Company founded in 1952

Capabilities

Design and manufacturing of composite parts, thermo-formed plastic for aircraft parts, plastic anti-corrosion equipment, sky domes, tanks, piping and tooling, aircraft windows, canopies and other transparencies.

Quality Standards

DND: AQAP-4
Others: CGSB DOT

Major Clients

Canadair Ltd
Pratt & Whitney Canada
CAE
McDonnell Douglas Canada (MCAIR)
De Havilland Aircraft
Innotech Aviation

Employees (1986) **Total:** 34
Engs. & Tech.: 3 **Shop personnel:** 28 **Admin.:** 3

Total Sales(1986) From \$1.5 to \$5 million

Plant Size 55,000 Sq. Ft.

POLE AIR AVIATION INC.



2290, 46th Avenue
Lachine, Québec
H8T 2P3

Contact: Paul-Émile Sarrazin, President
Telephone: (514) 636-8154
Telex: 05-821531

Company founded in 1972

Capabilities

Instruments & Accessories: Sales, overhaul, repair, modification.

Quality Standards

Others: M.O.T.

Major Clients

Canadair Ltd
Ministry of Natural Resources
Government of Quebec
Newfoundland Labrador Air Transport
Propair Inc.

Employees (1986) Total: 13

Engs. & Tech.: 1

Shop personnel: 10

Admin.: 2

Total Sales(1986) From \$1 to \$1.5 million

Plant Size 4,300 Sq. Ft.

POSITRON INC.



4810, Jean-Talon West
Montréal, Québec
H4P 2N5

Company founded in 1970

Contact: Ken R. Brown Senior,
Vice-President

Telephone: (514) 738-2200

Telex: 05-825739

Fax: (514) 731-8662

Capabilities

Advanced telecommunication systems including airport & mobile communication equipment.

Quality Standards

DND: AQAP-4 Z2992

Commercial: CS-03 (DOC)

Precision Machinery

Other Automated or Specialized Equipment

Fairchild computerized testing machine	1	Wave soldering machine	1
Computer aided design system (CAD)	3	Epoxy and rubber and encapsulation	1

Major Clients

Air Canada
C.P. Air
Dept. of Transport
Dept. National Defence (Canada)

Employees (1986) Total: 175

Engs. & Tech.: 50

Shop personnel: 100

Admin.: 25

Total Sales(1986) From \$10 to \$50 million

Plant Size 80,000 Sq. Ft.

PRATT & WHITNEY CANADA INC.



1000, Marie-Victorin Blvd E.
P.O. Box 10
Longueuil, Québec
J4K 4X9

Contact: L. David Caplan, President
Chief Executive Officer
Telephone: (514) 677-9411
Telex: 05-267509

Capabilities

Manufacturer of aircraft industrial gas turbine engines and parts.

Quality Standards

DND: AQAP-1
MIL: I-9858A Transport Canada Air Worthness Manuel

Precision Machinery

Pratt & Whitney carries a wide range of precision machinery. It has CAD/CAM and Computer Assisted Programming Capability and uses a wide variety of Numerical Control Machine Tools in the manufacturer of its high standard quality products.

Major Clients

Beech Aircraft Corp., De Havilland, Embraer

Employees (1986) Total: 8,400			
	Engs. & Tech.: 3,000	Shop personnel: 3,400	Admin.: 2,000

Total Sales (1986) Over \$100 million

1

4

PRECIMAX LTD



2140, Léger
Lasalle, Québec
H8N 2L8

Contact: S. Stefanovic Sr, President
S.D. Stefanovic Jr, Vice-President
Telephone: (514) 365-5440

Company founded in 1974

Capabilities

Manufacturer of custom built machinery, instruments and components, aircraft tools and dies.

Precision Machinery

Numerical Control Machine Tools

6 Programmable Digital Readouts for Milling and Lathe Machines

1 I.R.D. No.: 245 Balancing Computer

Other Automated or Specialized Equipment

Balancing I.R.D. Machine

Cylindrical Grinder

Conventional Machinery

Milling	3	Drilling	3
Turning (Lathe)	3	Sheet Metal	2
Cylindrical Grinding	1	Lathe with Taper	
Surface Grinding	1	Coppier Attachment	1
Internal Grinding	1	Diplomatic Tracer	1

Major Clients

Balancemax Ltd
Northern Telecom
Kruger Inc.
Rolls-Royce Canada
Pratt & Whitney Canada
Air Canada

Margo Corporation
Kraft Ltd
Montreal Lithographing
Cyanamid of Canada
VAC — Aero International Inc.
Stone Marine Canada Inc.

Employees (1986) Total: 12
Engs. & Tech.: 2 Shop personnel: 9 Admin.: 1

Total Sales(1986) From \$0.5 to \$1 million

Plant Size 5,000 Sq. Ft.

2

4

PRECI SYSTEMS INTERNATIONAL INC.



4150, Poirier Blvd
St-Laurent, Québec
H4R 2A5

Company founded in 1986

Contact: Paul A. Rousseau, President
J. Bernard Cathala, Vice-President
Telephone: (514) 337-9732
Telex: 05-824248
Fax: (514) 336-1824

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2
4

Capabilities

Design, development, testing and manufacturing of hydraulic, mechanical, hydro-mechanical and electro-mechanical systems for civil and military aircraft. Products include solenoid valves, shuttle valves servos, active and semi-active flight control systems. Full product support and R & O capabilities.

Quality Standards

MDN: AQAP-1
MIL: 45208A

Precision Machinery

CAO/FAO Computer-Assisted Programming Capability

APPLICON

Numerical Control Machine Tools

Sip MP 3KNC Jig Borer 2 Axes Positioning .0005
Edlund 2 NL VMC 2 Axes
Cincinnati CIM-X Changer 30MC 3 Axes
Cincinnati CIM-X Changer 720MC 3 Axes
Moog 83-1000 VMC 3 Axes
3 Bridgeport Series I-MC
OKK-MCV-300 3 Axes with 4th Axes
Rotary Table

Cincinnati Universal 12/20 x 54 TC 2 Axes
2 Hardinge HNC Chucker 2 Axes
Mori Seiki TL5A TC 2 Axes
3 Mori Seiki SL3A TC 2 Axes
Sodick A3C EDM Centre 3 Axes
1 Hardinge CHNC-16 C High Speed Chucker
1 Sodick 30NC EDM Center - 8 Station
Tool changer
1 Makino MCV 40 4 Axes Machining Center
with 60 tool Changer

Other Automated or Specialized Equipment

Hydraulic Test Benches - SKYDROL - MIL-H-5606
Environmental Test Facilities
Extensive inspection equipment
2 coordinate measuring machines

Conventional Machinery

Turning (Lathes)	18	Jig Boring	3
Turning	2	Lapping	3
Milling	16	Surface Grinding	7
Milling Pantographs	4	Cylindrical, Internal and Thread	18
Honing Spark Erosion		Drilling	14
Horizon Broaching	2		

Major Clients

McDonnell Douglas Canada (McAir)	Honeywell	Litton Systems Canada
Canadian Pratt & Whitney	Canadian Marconi Co.	Rolls Royce Canada
Canadair	E Systems	Heroux
Vickers	Litton Laser Systems	Spar Aerospace
CAE	Irvin Industries	

Employees (1986) Total: 100

Engs. & Tech.: 7

Shop personnel: 88

Admin.: 5

Total Sales (1986) From \$1.5 to \$5 million

Plant Size 24,000 Sq. Ft.

PROFAB INDUSTRIES LTD



5755, Metropolitan Blvd East
St-Léonard, Québec
H1P 1X3

Contact: Benny Imbriglio
Telephone: (514) 327-1550

Capabilities

Profab Industries is engaged in the design and manufacturing of small and medium size parts for the aircraft industry. It also produces tooling and different types of machinery.

Quality Standards

DND: AQAP-1/4/9

Precision Machinery

Numerical Control Machine Tools

- 1 Okuma CNC lathe model LB15C with control OSP5000-G, 15.75 DIA. x 21" CAP.
- 1 Bridgeport series I CNC (BOSS 5) Milling Machine 15" x 18"
- 2 Bridgeport series I CNC (BOSS 6) Milling Machine 15" x 18"

Conventional Machinery

Turning (Lathe)	5	Surface Grinding	1
Milling	7	External & Internal Grinding	1
Drilling	4		

Major Clients

Michelin Tires Canada Ltd
Canadair Ltd
Spar Aerospace
Menasco

M.A.N. Ashton
Canadian Astronautics
Rolls-Royce Canada
CAE Electronics

Employees (1986) Total: 21
Engs. & Tech.: 2 **Shop personnel:** 16 **Admin.:** 3

Total Sales (1986) From \$1 to \$1.5 million

Plant Size 8,000 Sq. Ft.

2

4

QUEBEC GEAR WORKS

2525, Halpern
St-Laurent, Québec
H4S 1E5

Contact: Dali Singh, President
Telephone: (514) 334-5381
Telex: 05-825645
Fax: (514) 334-5554

2

Capabilities

Precision machine shop specialized in high quality gears and ground support such as radars/antenna.

Quality Standards

DND: AQAP-1, AQAP-4, AQAP-9
MIL: 9858A, 45028A
Others: Bombardier & Westinghouse Transit Specifications

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

Commfile
TRS-80 (4)

Numerical Control Machine Tools

Mori Seiki SL-6

Conventional Machinery

Turning (Lathe)
Milling
Boring
Honing
Profiling
Drilling

Gear Cutting
Internal Grinding
External Grinding
Surface Grinding
Gear Grinding

Major Clients

Westinghouse Transportation Div.
Westinghouse Defence Systems
Hewitt Robins Ind.
Aba Electromechanical
Hoechst Fibers ind.
Deister Machine Co.

Employees (1986) Total: 35

Total Sales(1986) From \$1.5 to \$5 million

QUEBEC TOOLS CORPORATION



55, Benjamin-Hudon
St-Laurent, Québec
H4N 1H7

Contact: André St-Hilaire, President
Telephone: (514) 331-7720
Telex: 05-827679
Fax: (514) 331-0388

Company founded in 1948

Capabilities

The Company registered under the name of Quebec Tools and Machine Works Ltd in 1948 was renamed as Quebec Tools Corporation in 1975. Since its beginning, it has been engaged in the fabrication of different types of dies for the industry and in 1960, reoriented its activities to provide tooling, jigs and fixtures for the aircraft industry, components for nuclear and hydro-electric power plants.

Quality Standards

Others: CSA Z 299 2 ASME Sec III & VIII, National Board "U"

Precision Machinery

Other Automated or Specialized Equipment

Heavy plate fabrication equipment, 1000 ton capacity power brake submerge and electroslag welding facilities.

Conventional Machinery

Turning-lathes up to 52" dia. × 26 ft.

Vertical Boring Mills up to 204" dia. × 6 ft.

Horizontal Boring Mills up to 13 meter long × 4 meter high

External Grinding 26" dia. × 10 ft.

Major Clients

CAE Electronics
Pratt & Whitney Canada
General Electric (Nuclear Div.)

Rolls Royce Canada
Valmet Dominion
Sunds Defibrator Ltd

Employees (1986) Total: 110

Engs. & Tech.: 4

Shop personnel: 90

Admin.: 16

Total Sales (1986) From \$5 to \$10 million

Plant Size 80,000 Sq. Ft.

QUELOZ & ASSOCIÉS INC.

4075, Hamel Blvd
Ancienne Lorette, Québec
G2E 2H3

Contact: Guy Legare, President
J.P. Thomassin, VP
Telephone: (418) 872-8013
Fax: (418) 872-6777

Company founded in 1974

Capabilities

Manufacturer of high precision aeronautical parts, tools, jigs and molds.

Quality Standards

Others: Bendix Avelex, Menasco Can., P & WC, Canadian Arsenals

Precision Machinery

Numerical Control Machine Tools

Mazak Mazatrol Cam-M2 Vertical Quality Center VQC-20/40

Mazak Mazatrol T-1 Quick Turn 20/40, 8 Position Vertical Turret

Conventional Machinery

Turning Lathe	9	Drilling	6
Milling	5	Internal Grinding	3
Honing	1	External Grinding	6
Profiling	3	Surface Grinding	4

Major Clients

Pratt & Whitney Canada
Dept. of Nat. Defence
Canadians Arsenals
Menasco Canada

Employees (1986) Total: 27
Engs. & Tech.: 3 Shop personnel: 21 Admin.: 3

Total Sales(1986) From \$1.5 to \$5 million

Plant Size 4800 Sq. Ft.

2

4

R & M METAL PRODUCTS LTD

8845, Crescent 1
Anjou, Québec
H1J 1C9

Contact: Steinar Knai, President
Telephone: (514) 353-7130
Telex: 05-829552
Fax: (514) 353-8875

Company founded in 1963

Capabilities

Precision sheet metal shop specializing in electrical & electronic cabinets, junction boxes & related hardware, automobile & bus parts, agricultural equipment & tractor parts, computer chassis, painting & silkscreening.

Quality Standards

Commercial: CSA Z 299.3

Precision Machinery

Conventional Machinery

Milling	2	Shears	2
Turning (Lathe)	3	Complete prototype shop	1
Silk-screening	1	NC Press Brakes	14
Statistical process control (Quality)		Presses, welding machines	50
NC Punch presses	8	Automatic Paint Line	3

Major Clients

Northern Telecom
Hydro-Quebec
CAE Electronics
General Motors
Spar Aerospace

Employees (1986) Total: 200
Engs. & Tech.: 10 **Shop personnel:** 175 **Admin.:** 15

Total Sales(1986) From \$10 to \$50 million

Plant Size 126,000 Sq. Ft.

R.B. STAMPING INC.



1720, St-Charles
Drummondville, Québec
J2C 4Z5

Contact: Philippe Pépin, President
Telephone: (819) 477-2663
Fax: (819) 477-5451

Company founded in 1970

Capabilities

Metal stamping with welding and assembly facilities.

Quality Standards

DND: AQAP-1, AQAP-4
MIL: 9858A
Commercial: S.P.C.

Precision Machinery

Conventional Machinery

Sheet Metal 3
Metal Stamping short and long run presses
from 4 to 1500 tons 22

Major Clients

General Motors Can.	General Motors Corp.
Northern Telecom	Griffin Wheel
Griffin Can.	Eastern Technologies
Bombardier	Johns Mansfield Corp.
J.M. Asbestos	

Employees (1986) Total: 100
Engs. & Tech.: 6 **Shop personnel:** 91 **Admin.:** 3

Total Sales(1986) From \$5 to \$10 million

Plant Size 80,000 Sq. Ft.

RASAKTI TECHNOLOGY

3000, Power
Drummondville, Québec
J2C 6H9

Contact: Patrick Roseberry, President
Stan Glomski, Vice-President
Telephone: (819) 474-3366
Fax: (819) 474-3055

Company founded in 1986

Capabilities

Specialized in the design and manufacturing of tooling for inspection and production as well as in the fabrication of prototypes, parts and components for high technology industry. Design and fabrication of high precision mechanical assemblies and robotic attachments. Also produces mechanical equipment for laboratories. The company is familiar with special alloys (inconel, titanium...) and plastics.

Quality Standards

Commercial: High commercial

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

Mark XI

Numerical Control Machine Tools

Sodic EPOC 300 Wire E.D.M., 5 Axis

Enshu VMC 330 Machining Center, 3 Axis

Other Automated or Specialized Equipment

Optical Protractor 30" dia.

Heat Treatment Facilities

Perth-O-Meter S10D

Perth-O-Graph DWRU-LW

Conventional Machinery

Turning (Lathe)	4	Internal Grinding	3
Milling	4	External Grinding	3
Honing	1	Surface Grinding	3
Drilling	5	Jig Grinding	1
Gear Cutting	1	Others: Jig Bore	1
Contouring	1	Electrode E.D.M.	1
Profiling	1		

Major Clients

Pratt & Whitney Canada Inc.
I.B.M. Canada Ltd
Canadian General Electric of Canada Ltd
Governments
High Technology Industry

Employees (1986) Total: 20
Engs. & Tech.: 16 **Admin.:** 4

Total Sales(1986) From \$1 to \$1.5 million

Plant Size 10,000 Sq. Ft.



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REMTEC INC.

933, Simard Blvd
Chambly, Québec
J3L 4B7

Contact: Peter Roberts, President
Fred Warren, V.P. Marketing
Telephone: (514) 658-6671
Telex: 055-61653

Company founded in 1979

Capabilities

Manufacturer of tank semi-trailers, tank trucks, aircraft refuellers (aluminum, stainless steel).

Quality Standards

DND: AQAP 1,4
MIL: MIL 452084

Precision Machinery

Other Automated or Specialized Equipment

Seam welds: Head machines

Conventional Machinery

Brakes

Welding machines

Cranes

Materials Handling Equipment

Major Clients

Canadian & American oil Companies
Port authority of New York and New Jersey
Department of National Defence (Canada)
Department of Defence (U.S.)

Employees (1986) **Total:** 45
Engs. & Tech.: 4 **Shop personnel:** 30 **Admin.:** 11

Total Sales(1986) From \$5 to \$10 million

Plant Size 70,000 Sq. Ft.



RPM TECH. INC.



184, Rte 138
Cap-Santé, Québec
G0A 1L0

Contact: Marcel Papillon, President
Telephone: (418) 285-1811
Telex: 051-3524

Company founded in 1962

Capabilities

Manufacturer of forced air blowers, runway sweepers and snow blowers.

Quality Standards

DND: AQAP-4

Precision Machinery

Numerical Control Machine Tools

- 3 Latest model of computerized lathe
- 3 automatic welding machine, sheer
- 6 Presses, sand blast (2), etc...
- 5 Milling machine
- 10 1929 and upgraded every year lathe (manual)

Major Clients

Department of National Defence (Canada)
Department of Transport (Canada)
Cities

Employees (1986) Total: 55
Engs. & Tech.: 3 Shop personnel: 43 Admin.: 9

Total Sales (1986) From \$10 to \$50 million

Plant Size 100,000 Sq. Ft.

ROBERT MITCHELL INC.

350, Décarie
St-Laurent, Québec
H4L 4W5

Contact: G.H. Holland, President
P.E. Dostie, VP Marketing
Telephone: (514) 747-2471

Company founded in 1851

Capabilities

Manufacturer of passenger loading bridges, service vehicles, castings and aircraft assemblies.

Quality Standards

DND: AQAP-4
Others: CSA Z-299.2 Transport Canada

Precision Machinery

Numerical Control Machine Tools

CNC 2-Axes Press, Behrens 25/40/24

Conventional Machinery

Turning (Lathes)	27	Sheet Working	59
Milling	10	External Grinding	1
Drilling	20	Surface Grinding	2

Major Clients

GE (Pittsfield)	De Havilland Aircraft
Rolls-Royce (Canada)	Air Canada
Pratt & Whitney Canada	Department of National Defence
Canadair Ltd	

Employees (1986) **Total:** 650
Engs. & Tech.: 5 **Shop personnel:** 400 **Admin.:** 245

Total Sales(1986) From \$50 to \$100 million

Plant Size 250,000 Sq. Ft.



ROLLS-ROYCE (CANADA) LTD



9500, Côte de Liesse Road
Lachine, Québec
H8T 1A2

Contact: H.R. Beattie, President & Gen. Mgr
J.P. Cheffins, VP Marketing
Telephone: (514) 631-3541
Telex: 05-821882

Company founded in 1947

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Capabilities

Manufacturer of light-weight industrial gas-turbines overhaul and repair and spares support of aero engines. Also repairs engine parts and manufactures precision machined components. Rolls-Royce (Canada) has a world product mandate for the design and manufacture of Rolls-Royce industrial engine fuel systems and lubrication consoles. It builds all Rolls-Royce industrial RB 211 engines. Over the years it has handled over 14,000 engines of all kinds. Its very modern facilities include five test cells, the newest of which can accommodate engines with up to 100,000 pounds of thrust. Rolls-Royce (Canada) has also undertaken a wide range of R & D programs.

Quality Standards

DND: AQAP-1, AQAP-4, AQAP-6, AQAP-9
MIL: 9858A, 45208A, C45662
Others: D.O.T. No. 1/58 U.K. CAA Certificate LAA A1/2423/47

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

IBM (lockheed system)
IBM 4381 computer

Welding Machines

Hobart Dabber Automatic Pulse Weld System
T.I.G. Welding (semi-automatic)
2 Holden Hunt Resistance Welding (seam)
3 Sciaky Resistance Welding (spot)
8 Arco Weld Equipment Fusion Welding
G.T.A.W. Fusion Welding

Conventional Machinery

Profiling 1
Turning (Lathe) 11
Milling 3
Boring 1
Honing 1
Surface Grinding 1

Numerical Control Machine Tools

5 Cincinnati Drill 2 Axes
Webster & Bennett 72 Eric Vertical Boring Mill
Devlieg 3H72 2 Axes
Devlieg 43J40 Horizontal Boring Machine 2 Axes
2 Sundstrand OM2A Omnimill 4 Axes
SMT-Pullmax Swedturn 20 Lathe 2 Axes
2 Sundstrand Series 80 Omnimill 5 Axes
Devlieg 43J60 Horizontal Boring Machine 4 Axes

Drilling 2
Sheet Metal 1
Internal Grinding 1
External Grinding 1
Electro Discharge 1

Major Clients

Department of National Defence (Canada)	Gulfstream Aerospace
Air Canada	IBM
De Havilland Aircraft	Avco-Lycoming
Quebecair	Governments of the World

Employees (1986) Total: 700
Engs. & Tech.: 68 **Shop personnel:** 432 **Admin.:** 200

Total Sales (1986) Over \$100 million

Plant Size 385,000 Sq. Ft.

S.I.D.O. LTD



855, Vadnais
Granby, Québec
J2G 8E4

Contact: Luc Benoit, President
Albert Martel, Prod. Mgr
Telephone: (514) 378-2222 or 861-6472

Company founded in 1949

Capabilities

SIDO LTD supports prime contractors involved in the production of defence and aerospace activities. Production consists of a very wide variety of machined parts made on screw machines, CNC lathes and other precision production lathes. The secondary operations are done with various other equipment, depending on dimensions, shapes and tolerances.

Quality Standards

MIL: 0-9858
Others: AQAP-4, CPW-107

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

MAI to program CNC lathe
Encode I to program CNC lathe

Numerical Control Machine Tools

2 CNC Turnex 1½" dia bar feed capacity
1 Miyano 1¼" dia bar feed capacity
1 Miyano 2¾" dia bar feed capacity
1 Citizen ⅝" dia bar feed capacity

Conventional Machinery

Screw machine	33	Boring	12
Turning lathes	10	Cylindrical grinding	2
Milling/slotting	6	Centerless grinding	3
Honing	1	Surface grinding	2
Gun drilling	1	Gear cutting	7
Drilling	12		

Major Clients

Menasco Aerospace Ltd
Pratt & Whitney Canada Inc.
Canadian Marconi Company

Rockwell International
Canadian Arsenals
Diemaco Inc.

Employees (1986) Total: 40
Engs. & Tech & shop.: 34 **Admin.:** 6

Total Sales(1986) From \$1.5 to \$5 million

Plant Size 20,000 Sq. Ft.

SERMATECH CANADA INC.



747, Riddle Avenue
Dorval, Québec
H9P 1H4

Company founded in 1960

Contact: Robert Tollett, Operations Mgr
Claude Leduc, Sales Rep.

Telephone: (514) 631-2240

Fax: (514) 636-6196

Capabilities

Sermatech Canada, a division of Sermatech International, offers a wide variety of technical services to the gas turbine industry. The Canadian facility offers metallic and ceramic coatings for corrosion, erosion and protection of turbine components. Sermatech does specialized braze — diffusion repairs, high-energy plasma applications, WC and CRC and thermal barriers.

Quality Standards

MIL: 9858A, I-45208A, C-81751, and E-15936

Commercials: D.O.T., PWA, GE, PWC

Precision Machinery

Conventional Machinery

Turning Lathe

Major Clients

Pratt & Whitney Canada
Hawker Siddeley (Orenda)
Rolls-Royce Canada
Standard Aero
Westinghouse Canada

Employees (1986) Total: 22

Engs. & Tech.: 2

Shop personnel: 14

Admin.: 6

Total Sales (1986) From \$1.5 to \$5 million

Plant Size 15,000 Sq. Ft.

SHELLCAST FOUNDRIES INC.

10,645, Lamoureux
Montréal-North, Québec
H1G 5L4

Company founded in 1970

Contact: Bodo B. Morgenstern, President
George C. Wall, Sales Manager

Telephone: (514) 322-3760

Telex: 05-828787

Fax: (514) 322-7226

Capabilities

Shellcast Foundries Inc. is a non-ferrous investment casting foundry that has emerged as a major vendor to many of the major prime contractors involved in the international aerospace and defense industries. It has a subsidiary — Shellcraft Industries Inc. located in Winooski, Vermont.

Quality Standards

DND: AQAP-1, AQAP-4

MIL: I-45208

Others: D.O.T.

Precision Machinery

Robotics

Robots specifically for the investment casting industry.

Special Process

Radiography, penetrant, heat treatment, spectrochemical analysis, tensile testing, welding, dimensional inspection (Mitutoyo coordinate's measuring machine).

Other Automated or Specialized Equipment

Specialized equipment for the investment casting industry.

Major Clients

G.E.C. — England
General Dynamics
Honeywell Inc.
Hughes Aircraft Company
Kaiser Electronics
Litton — Italy
Messier — France

Boeing Military Airplane Co.
R.C.A. Corporation
Raytheon Company
Rockwell International
Sperry
Texas Instruments

Employees (1986) Total: 150

Engs. & Tech.: 7

Shop personnel: 139

Admin.: 4

Total Sales (1986) From \$5 to \$10 million

Plant Size 43,000 Sq. Ft.

SIDER-TECH LTD



753, Bériault
Longueuil, Québec
J4G 1X7

Contact: Denis Dessureault, President
Michel Dubuc, Vice-President
Telephone: (514) 670-4292

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Company founded in 1978

Capabilities

Since its beginning Sider-Tech Ltd has been engaged in the fabrication of small and medium aircraft parts. It specializes in the manufacturing of various aircraft engine parts and landing gear components, including engine brackets, air seals, impeller shrouds, tube transfers, bearing housings, etc. Its specialty is prototypes in aircraft engine parts, airplane and helicopter parts in exotic material (ex.: inconel, titanium, greek asceloy, etc.).

Quality Standards

DND: AQAP-1, AQAP-4, AQAP-6, AQAP-9

MIL: I-45208, STD-45662

Others: STP, FTP, MPS, CP & W, RPS, MSRR, AMX, CPES, XES, D.O.T., etc.

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

MIPC 640K with hard disk, Autocad, Dbase III, Lotus 123, Wordprocessing Televideo 640K, Tape Reader 1.2 Mega, Hard Disk 20 Mega, Autocad Graphic Printer. N.C. HQ II & Tripoint with Graphic Video.

Numerical Control Machine Tools

2 Bridgeport C.N.C. Machine Center No 1 Boss 6
1 Bridgeport C.N.C. Machine Center No 2 Boss 6
1 C.N.C. Chucker Lathe Model Yam CK-5 30 H.P.

Conventional Machinery

Turning (Lathe)	4	Saw (Vertical)	1
Turning (Turret Lathe)	2	Saw (Horizontal)	1
Milling (Vertical)	1	Hydraulic Press 20 Tons	1
Milling (Vertical, Horizontal)	1	Plate Roller	1
Milling (Turret)	4	Welding TIG	1
Jig Bore	1	Welding Arc	1
Honing	1	Welding GAS	1
Drill Press	2	Welding Semi-auto	1
Drill Press (Multi head)	1	Fork Lift	1
Grinder (Surface)	1		

Major Clients

Canadair Ltd
Canadian Marconi Canada
Canadian Pratt & Whitney
I.B.M.
Bell Helicopter

IREQ
Bombardier
Rolls-Royce (Canada)
Department of National Defence (Canada)
New-York City Transit

Employees (1986) Total: 26

Engs. & Tech.: 3

Shop personnel: 20

Admin.: 3

Total Sales(1986) From \$1 to \$5 million

Plant Size 6,000 Sq. Ft.

SPAR AEROSPACE LTD

21025, Trans-Canada Hwy
Ste-Anne-de-Bellevue, Québec
H9X 3R2

Company founded in 1968

Contact: G.A. Branchflower, VP & G.M.
M. Gercenstein, Dir. Business Dev.

Telephone: (514) 457-2150

Telex: 058-22792

Fax: (514) 457-2724

Capabilities

Development, design, manufacturing and assembly, integration and test of communication satellites and satellite communication subsystems units and components. Design and manufacturing of earth stations.

Quality Standards

DND: AQAP-1, AQAP-4, AQAP-6, AQAP-9

MIL: 45208A, D9858

Others: NASA NHB 5300.4 (1B)

Precision Machinery

Robotics

Automatic Network Analyser
— 2 18GHz HP.8542-B
Automatic Network Analyser
— 2 18GHz HP.8408-S
Automatic Network Analyser
— 05.1.3GHz HP.8507-S
Automatic Spectrum Analyser
— 0.01 40GHz HP.8580-B
Automatic Antenna Analyser
— 2 18GHz SA 2080 (2)
Automatic Antenna Analyser
— 2 18GHz SA 2020
Multi Purpose Automatic and Test System
for Transponders Receivers and Amplifiers Spar
Configuration (3)
Coordinate Measuring System Mitutoyo B 231
Phase-Noise Measurement System (H.P.)
Ninholtz-Dickie Vibration Facility

CAD/CAM Computer-Assisted

Programming Capability

1 VAX 11780 180 PC-XT
2 Micro-VAX Q3 20 PC-AT
6 McAUTO CAD/CAM Work Stations HP 9920

Numerical Control Machine Tools

Mitsui-Seiki VR3 CNC Vertical Machining Centre
Mitsui-Seiki VR5 CNC Vertical Machining Centre
Kearney & Trecker MM180 CNC Horizontal
Machining Centre
Mitsubishi M55 CNC Probe EDM
ELOX E CNC Wire Feed EDM
MOOG 83-1000 Hydra Point Vertical M.C. Mill

Other Automated or Specialized Equipment

Mitutoyo B231	Range 24" x 24"
Zeiss PMC 850	Range 32" x 27"
OGP Q-/EE 600	Range 18" x 24"

Conventional Machinery

Turning (Lathe)	4
Milling	9
Surface Grinding	3
Full Range Sheet Metal Equipment	
Welding (Resistance, Argon ARC,2 x 7 Acetylene)	
Soldering (Vapor Phase, RF Induction, Forced Air, Wave Soldering, Belt Reflow, Hand)	

Major Clients

Hughes Aircraft Company
TRW
RCA-Astro
Embratel
Selenia Spazio
Ministry of Petroleum (China)
Laben

Telesat Canada
Department of National Defence (Canada)
European Space Agency (ESTEC)
Department of Communications (Canada)
Department of Energy, Mines & Resources
(Canada)
Ministry of Posts & Telecommunications (China)

Employees (1986) Total: 720

Engs. & Tech.: 240

Shop personnel: 120

Admin.: 360

Total Sales (1986) From \$50 to \$100 million

Plant Size 300,000 Sq. Ft.

STEEL TREATERS OF QUEBEC INC.

560, Sauvé Blvd
St-Eustache, Québec
J7R 5A8

Contact: Georges Henry, President
Jean-Jacques Brunet
Telephone: (514) 473-1884 — (514) 875-5883

Company founded in 1964

Capabilities

PRODUCTS, SERVICES, SPECIALITIES

Custom heat treating (tempering) of various steel alloys.

Quality Standards

DND: AQAP-1

MIL: 9858A

Commercial: Boeing, McDonnell Douglas, etc.

Precision Machinery

Conventional Machinery

Salt Bath

Atmosphere Furnace

Vacuum Furnace

Induction (15' dia. max.)

Major Clients

Vestshell Inc.

Eastern Precision Castings

Hochelaga Aerospace Inc.

Joly Engineering

Bata Engineering

Chicopee MFG

Menasco

Canadair Ltd

Heroux Inc.

Employees (1986) **Total:** 34

Shop personnel: 24

Admin.: 10

Total Sales(1986) From \$1.5 to \$5 million

Plant Size 44,000 Sq. Ft.

T.W. MANUFACTURING INC.

3700, Richelieu Street
St-Hubert, Québec
J3Y 7B1

Contact: Bob B.J. Meindersma, President
Luc Jourdain, Controller
Telephone: (514) 656-8080

Company founded in 1975

Capabilities

T.W. Manufacturing specializes in the production of high-quality machined parts and components for the aerospace and telecommunications industries. T.W. is a recognized sub-contractor for major Canadian and American aircraft industries. Efforts are directed mainly towards the engine and landing gear sectors. In the engine area, it manufactures bearing housings, flanges, oil filter housings, oil nozzles, etc., ranging in size from fractions of an inch to several inches. In the landing gear area, it manufactures torsion bolts, metering pins, cylinders, locknuts, etc. In the airframe area, it manufactures various structural components. In the telecommunication area, T.W. manufactures circulators, reject filters, flanges for various waveguides, couplers, isolators, etc. in aluminium, brass, and copper.

Quality Standards

DND: AQAP-4
MIL: 45208A

Precision Machinery

Numerical Control Machine Tools

Swedturn ST-10 Lathe 2 Axes
2 Hurco M-11 3 Axes
Enshu WMC 330 Milling Center
Mori Seiki SL-3

Other Automated or Specialized Equipment

3 Coordinate Measuring Machine

Conventional Machinery

Turning (Lathe)	8	Internal Grinding	2
Milling	7	External Grinding	1
Honing	1	Surface Grinding	2

Major Clients

Apolo Microwaves
Canadair Ltd
Pratt & Whitney Canada
I.B.M.

McDonnell Douglas
Menasco Canada Ltd
Northern Telecom

Employees (1986) Total: 28
Engs. & Tech.: 3 Shop personnel: 22 Admin.: 3

Total Sales(1986) From \$1 to \$5 million

Plant Size 12,000 Sq. Ft.

TEAM INC.

2980, Diab
St-Laurent, Québec
H4S 1M7

Contact: Alain Fouilloux, Vice-President Mark'g
Yves Benchimol, Eng.
Telephone: (514) 745-1600

Company founded in 1985

Capabilities

Team Inc. has been operational since February 1987. As a subsidiary of Team, a 250 employee European company, it has a wide know-how in fields such as:

- Airbone analog and digital systems: Audio control panels, junction boxes, interphone amplifiers
- Computer controlled centralized systems: Audio Radio management, Selective Calling Systems
- Energy conversion: Equipment units, cards, hybrid converters, DC/DC
- Centralized management systems
- Sound equipment and telephony
- Flight simulators

Quality Standards

MIL: 45025, 9858A

Precision Machinery

Other Automated or Specialized Equipment

Oscilloscope Gould. 68000 and 6809 Microprocessor development units.

Major Clients

Wardair
CAE

Employees (1986) Total: 3
Engs. & Tech.: 3

Total Sales(1986) Under \$0.5 million

Plant Size 1,159 Sq. Ft.

TECHNIMECA INTERNATIONAL INC.

380, Montée de Liesse
St-Laurent, Québec
H4T 1N8

Contact: Guy Chêne, Vice-President - Sales
Gabriel Isabey
Telephone: (514) 739-3193
Fax: (514) 739-8961

Company founded in 1972

Capabilities

Precision machine shop for aircraft parts. Manufactures and assembles small and medium-size precision machine parts from solid bar, forging, or casting to military specifications or the customer's specific needs.

Quality Standards

DND: AQAP-4, AQAP-6
MIL: 45208A, 45662

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

H.P. 310-19CH CAD/CAM SYSTEM IBM XT
H.P. 9816
IBM AT

Numerical Control Machine Tools

LATHES: Nakamura Tome Superturn 3 2 Axes
Mori-Seiki (2) SL3 & TL5 2 Axes
Hardinge CHMC II 2 Axes

MACHINING CENTER:

Mori-Seiki MV 40 Vertical 4 Axes
OKK 300 Vertical 4 Axes
Matsuura 500 (5) Vertical 4 Axes

Conventional Machinery

Lathes	9	Thread Grinding	5
Milling	9	Cylindrical Grinding	3
Drilling	15	Internal Grinding	2
Profiler	3	Surface Grinding	2
Honing	2	Tool Grinding	3
Lapping	1	Gun Drilling	1

Major Clients

Pratt & Whitney Canada
McDonnell Douglas
Menasco
Canadair Ltd

Diamaco
Canadian Marconi
Bendix Avelex

Employees (1986) Total: 68
Engs. & Tech.: 3 Shop personnel: 55 Admin.: 10

Total Sales(1986) From \$1.5 to \$5 million

Plant Size 28,000 Sq. Ft.

TECHNIPRODEC LTD

11,710, Philippe Panneton
Montréal, Québec
H1E 4G4

Company founded in 1975

Contact: André B. Farkas, President
André Thériault, R & D

Telephone: (514) 352-7339

Telex: 055-62171

Fax: (514) 284-2282

Capabilities

Techniprodec Ltd has specialized from the beginning in the production of aluminium molds for the Investment Casting industry, and in the production of precision machined parts for the Aerospace and Defence industries.

Expanded the scope of its operations through the years to satisfy the needs of the telecommunication and commercial fields.

Quality Standards

DND: AQAP-1, AQAP-4

MIL: 45208

Others: B.H.T., Q.P.S. 100

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

3 Dimensions (Weber) NC Programming System Prompt 3000

Hewlett-Packard 7475 Plotter

Numerical Control Machine Tools

1 Kitamura Mycenter 3W CNC

Double Spindle Machining Center 4 Axis

2 603 CNC Machining Center 3 Axis

Ex-Cell-O

Conventional Machinery

Turning (Lathe)	3	Surface Grinding	2
Milling	7	Multi Spindle Drilling (12)	1
Horizontal Milling	1	Turret Drill (6)	2
Honing	1		

Major Clients

Canadair Ltd

Canadian Marconi Co.

CAE Electronics Ltd

Cercast Inc.

Arwood Corporation

Employees (1986) Total: 25

Engs. & Tech.: 3

Shop personnel: 19

Admin.: 3

Total Sales (1986) From \$0.5 to \$1 million

Plant Size 10,000 Sq. Ft.

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TECH-REP ELECTRONICS LTD

7115, Trans-Canada Highway
St-Laurent, Québec
H4T 2A5

Contact: M. L.N. Connolly
Telephone: (514) 337-6046
Telex: 05-824847
Fax: (514) 335-0288

Company founded in 1976

Capabilities

The company was formed to provide electronic products to the industrial and O.E.M. markets in Canada. Eleven years later, Tech-Rep is mainly known for providing Electronic Test Equipment to the aerospace industry. The company's engineering staff are available to help manufacturers in the design and application of electronic or mechanical products. The firm has expanded its market across North-America.

Quality Standards

Others: D.O.T., P & WC

Precision Machinery

Robotics

Excillon M.C. 30's

CAD/CAM Computer-Assisted Programming Capability

CAD Capability

Other Automated or Specialized Equipment

Fully equipped R & D laboratory

Major Clients

Department of National Defence (Canada)	MBB Helicopters
Pratt & Whitney Canada	Department of Transport (Canada)
DeHavilland Aircraft	Sikorsky Aircraft
Litton Systems	Beech Aircraft
Aerospatiale Inc.	

Employees (1986) Total: 142

Engs. & Tech.: 26

Shop personnel: 104

Admin.: 12

Total Sales(1986) From \$10 to \$50 million

Plant Size 25,000 Sq. Ft.

TESAMATEC INC.

1400, Bergar
Chomedey, Laval, Québec
H7L 9Z7

Contact: D. Stuccliffe, Tech. Sales Rep.
Telephone: (514) 937-9151
Telex: 055-66149

Company founded in 1987

Capabilities

Machining of various aircraft components to customers' specifications in materials varying from magnesium through titanium and all high temperature alloys in sizes ranging from 2" to 30" dia.

Special capabilities:

Manufacture of turbine engine sealing and retaining rings.

Quality Standards

DND: AQAP-1, AQAP-4
MIL: 45208A, H6875F

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

Applicon Compact II System

Numerical Control Machine Tools

1 Mazak 5L N.C. Lathe
3 Mazak 4L
2 Jones & Samson 4515 N.C. Lathe
1 Leblond #24 Tape Turne Regal
1 Mazak V5 Machining Center
1 Rambdaudi Mini Ram

Other Automated or Specialized Equipment

Heat Treatment furnaces qualified to Mil. H6875F (Air).

Conventional Machinery

Turning (Vertical/Horizontal) 10
Milling (Vertical/Horizontal) 7
Grinding (Internal/External/Surface) 6

Major Clients

Pratt & Whitney Canada
Rolls-Royce Canada
Avco Lycoming
Martin Marietta

Employees (1987) Total: 41

Engs. & Tech.: 5

Shop personnel: 33

Admin.: 3

Total Sales(1987) From \$1.5 to \$5 million

Plant Size 22,000 Sq. Ft.

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4

TRIDENT INDUSTRIES INC.



11,550, 4th Avenue
Rivière-des-Prairies, Québec
H1E 3A6

Contact: Angelo Baccalaro, President
Osvaldo Baccalaro, Vice-President
Telephone: (514) 648-0285

Company founded in 1976

Capabilities

Precision machine shop specializing in aircraft components such as: landing gears, flight control, structural parts, waveguides, etc.

Quality Standards

DND: AQAP-4, AQAP-9
MIL: 1-45208A

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

Fanuc PG programming system.

Numerical Control Machine Tools

- 1 Hardinge CHNC II CNC Lathe 2 Axes contouring
- 2 Okuma LSN-10 CNC Lathe 2 Axes contouring
- 1 Okuma MC-3V CNC Machining Center 3 Axes contouring
- 1 Okuma MC-4VA CNC Machining Center 3 Axe contouring
- 1 Okuma MC-6V CNC Machining Center 4 Axes contouring
- 2 Bridgeport Series I CNC Milling Center 3 Axes contouring

Conventional Machinery

Lathe	4	Drilling	4
Milling	3	Surface Grinding	1
Honing	1		

Major Clients

Menasco Aerospace Ltd
Canadair Ltd
Canadian Marconi Co.
CAE

Cleveland Pneumatic Co.
Control Data — CDC Div.
Spar Aerospace Ltd

Employees (1986) Total: 19
Engs. & Tech.: 2 Shop personnel: 16 Admin.: 1

Total Sales(1986) From \$1 to \$1.5 million

Plant Size 4,200 Sq. Ft.

TRIPLEX ENGINEERING CO. LTD



181, Oneida Drive
Pointe-Claire, Québec
H9R 1A9

Company founded in 1952

Contact: M. Pohoryles, President
P. Braun, VP Sales & Admin.
Telephone: (514) 695-9872
Telex: 05-822664
Fax: (514) 695-0888

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Capabilities

Company involved in various types of precision machining, sheet metal and wire production.

Quality Standards

MIL: 9858A, 105D

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

Digital Vax 750
Smart Cam
Autocad

Numerical Control Machine Tools

1 Hurco KM-1 Machining Centre 3 Axes
2 Nakamura Tome ATM-3N Turning Centre 2 Axes
6 Nakamura Tome TMC-4 Turning Centre 2 Axes
2 Citizen Citcom F25 Swiss Type Lathe 3 Axes
1 Hurco KMB-1 Machining Centre 3 Axes
2 Matsuura MC-500V Vertile Machining Centre 2 Axes
1 Myano JNC-45 Turning Centre
1 Hardinge Superslant Chucker 4 Axes
1 Index GE 45 Lathe
1 Index GE 65 Lathe
3 Hardinge Lathes with Bar Feed

Other Automated or Specialized Equipment

75 Multi-single Screw Machines and Chuckers

Conventional Machinery

Turning (Lathe)	7	Cold Headers	7
Milling	24	Internal Grinding	1
Drilling	69	External Grinding	7
Thread Rolling	4	Surface Grinding	6

Major Clients

Ford Aerospace	Northern Telecom
Bulova Systems	Hamilton Technology
Dept. of National Defence (Canada)	Crane Canada
Xerox of Canada	U.S. Dept. of Defence

Employees (1986) Total: 300
Engs. & Tech.: 15 **Shop personnel:** 255 **Admin.:** 30

Total Sales(1986) From \$10 to \$50 million

Plant Size 100,000 Sq. Ft.

U.D.T. INDUSTRIES INC.

2125, Ste-Catherine Street East
Montréal, Québec
H2K 2H9

Contact: André Lebrun, C.E.O.
Raymond Gagné, Marketing Man.
Telephone: (514) 526-9454
Telex: 05-25575

Company founded in 1942

Capabilities

Since the beginning it has been engaged in the manufacturing of small to large size aircraft components.

Design and manufacturing of support tooling is done in-house.

U.D.T. Industries has experience in machining large titanium components, in heat-treatment of aluminum alloys and subsequent straightening operations.

Quality Standards

DND: AQAP-4, AQAP-6

MIL: 1-45208

Others: C.Q.A.R. — 10 and/or other customer provisions

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

NCL Interactive graphics. (Full 2 to 5 Axes Motion) with two work stations tek 4109A

Elan Soft Ware on HP9845 (Up to 2½ Axes Motion)

Numerical Control Machine Tools

Cincinnati 3 Spindle Gantry Type, 3 Axes

Cincinnati Horizontal Machining Centre, Travel: 2 Rotary Tables 3 Axes

2 OKK MCV 800, 1 Spindle Vertical Machining Centre, Travel, 4 Axes

2 OKK MCH 800, 1 Spindle Horizontal Machining Centre, 4 Axes

ACROLOC Vertical Machining Centre

LINE 3 Spindle Gantry Type, 4 Axes

LINE 3 Spindle Vertical Profiler Bed Type, 3 Axes

Cincinnati, Vertical Machining Centre, 5 Axes

Other Automated or Specialized Equipment

Vertical, cylindrical, gantry type heat-treating furnace with an interior working zone measuring 20 feet in height by 6 feet in diameter. It has been approved for heat-treating, quenching and age hardening of aluminum alloys from 7075 T 411 or F, to T-6 and/or T-73 conditions, as well as the 2014 ranges where temperatures up to 1,000° F are required with controls to within 3° F.

Conventional Machinery

Profiling	9	External Grinding	1
Millings	10	Surface Grinding	2
Turning (Lathe)	2	Radial Drilling	2
Gun Drilling	1	Tool & Cutter Grinding	6

Major Clients

McDonnell Douglas Canada (MDCAN)

McDonnell Douglas Corporation (McAir - St-Louis, Mo.)

Canadair Ltd

D.S.S. Canada (Dept. of Supply and Service)

DeHavilland Aircraft of Canada

Lockheed Corporation

Brooks & Perkins

Grumman Aerospace Corporation

Employees (1986) Total: 93

Engs. & Tech.: 3

Shop personnel: 80

Admin.: 10

Total Sales(1986) From \$10 to \$50 million

Plant Size 100,000 Sq. Ft.

ULTRAVIA AERO INC.

609, Iberville
Repentigny, Québec
J6A 6Y7

Contact: Jean-René Lepage, President
Lorraine Chauvin, Vice-President
Telephone: (514) 585-6132
Telex: 05-268897

Company founded in 1982

Capabilities

Canadian company engaged in the design, manufacturing and sales of light and ultra-light aircraft up to 4 seats. Since 1984, Ultravia Aero has gained expertise in composite materials in addition to steel and aluminum aircraft structures. Aircraft are mostly sold in kit form.

Quality Standards

Others: Department of Transport

Precision Machinery

Conventional Machinery

VACUUM Molding (Composite materials)

Employees (1986) **Total:** 8
Engs. & Tech.: 3 **Shop personnel:** 3 **Admin.:** 2

Total Sales (1986) From \$0.5 to \$1 million

Plant Size 5,000 Sq. Ft.

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V.A. INC. (ATELIER ANODISATION)

3971, Verdun
Montréal, Québec
H4G 1L1

Contact: Bernard Fortin, President
J.C. Fortin
Telephone: (514) 761-4531

Company founded in 1952

Capabilities

V.A. Inc. was founded in 1952 and incorporated in 1961. Since the beginning, the company has been engaged in the surface treatment of aluminum parts for customers to Mil Specs. For the aircraft industry it handles mostly landing gear components, control parts, rub strips, etc. The firm specializes in sul, chromic and hardcoat anodizing as well as in chemical film to customers requests.

Quality Standards

MIL: A-8625, Type 1-2-3 and C-5541

Others: McDonnell Douglass, Boeing, Grumman, De Havilland, Kanan, Garrett, Menasco, Cleveland Pneumatic, Canadair Ltd, Rolls-Royce, G.E., etc.

Major Clients

Menasco	Spar Aerospace
Boeing Aircraft	Cleveland Pneumatic
McDonnell Douglas	De Havilland
Department of National Defence (Canada)	Garrett
General Electric	

Employees (1986) Total: 41
Engs. & Tech.: 3 **Shop personnel:** 32 **Admin.:** 6

Total Sales (1986) From \$1.5 to \$5 million

Plant Size 16,000 Sq. Ft.

VAC-AERO INTERNATIONAL INC.

7450, Vérité Street
St-Laurent, Québec
H4S 1C5

Contact: Louis P. Gosselin, General Mgr
Telephone: (514) 334-4240
Telex: 05-824750

Capabilities

Supplier of thermal processes (Heat treating, brazing, plasma, coating, etc.) and repair and overhaul of aircraft and engine components.

Quality Standards

DND: AQAP-1

MIL: H(6875-6088) S-6090, B-7883

Others: ACNOR Z2993

Commercial: Bac 5600, PS 15000, DPS 700, CP WZ1, MMPS 168, CPW33, Bac 5851

Major Clients

Pratt & Whitney Canada

Boeing

Air Canada

Rolls-Royce Canada

Canadair Ltd

Hawker Siddley

Menasco

C.P. Air

Employees (1986) **Total:** 24

Engs. & Tech.: 5

Shop personnel: 16

Admin.: 3

Total Sales (1986) From \$1.5 to \$5 million

Plant Size 12,000 Sq. Ft.

VENUS AEROSPACE LTD



7555, Côte-de-Liesse
St-Laurent, Québec
H4T 1G2

Contact: Tom Cheibes, President
Costas Touloupoulos
Telephone: (514) 738-5932

Company founded in 1981

Capabilities

Venus Aerospace specializes in tooling and precision work for the aircraft industry. It handles small quantity orders and prototypes.

Precision Machinery

Numerical Control Machine Tools

2 Cincinnati Acramatic

Conventional Machinery

Jig Bore	1	VTL 48"	1
Milling	5	Honing	1
Turning (Lathe)	3	Multihead Drilling	1
Grinding	4		

Major Clients

Pratt & Whitney Canada
Canadair Ltd
Rolls Royce Canada
General Electric

Employees (1986) Total: 6
Shop personnel: 6

Total Sales(1986) From \$0.5 to \$1 million

Plant Size 6,000 Sq. Ft.

VESTSHELL INC.

10,351, Pelletier Avenue
Montréal-North, Québec
H1H 3R2

Company founded in 1959

Contact: Joseph Valenta, President
Greg Brown, Sales Manager

Telephone: (514) 326-1280

Telex: 05-829586

Fax: (514) 326-6140

Capabilities

Investment castings of ferrous alloys up to 300 lbs.

Quality Standards

DND: 1015 AQAP-1

MIL: 9858A, 2175

Others: NCA-3800

Major Clients

Pratt & Whitney Canada

Texas Instruments Inc.

Singer Co. Kearfott Div.

Employees (1986) Total: 200

Engs. & Tech.: 10

Shop personnel: 170

Admin.: 20

Total Sales(1986) From \$5 to \$50 million

Plant Size 55,000 Sq. Ft.

VICTORIA PRECISION INC.



2901, Rouen Street
Montréal, Québec
H2K 1N9

Company founded in 1941

Contact: W. Stanimir, President
P. Stanimir, Vice-President
Telephone: (514) 524-1143
Telex: 05-829531
Fax: (514) 521-3817

2

4

Capabilities

PRODUCTS, SERVICES, SPECIALITIES

Custom machinery, tools, dies, aircraft components, broaches, broaching.

Precision Machinery

Numerical Control Machine Tools

1 Jig Borer
1 Fospick

Other Automated or Specialized Equipment

Form Grinder

Conventional Machinery

Turning (Lathe)	10	External Grinding	2
Milling	10	Centerless Grinding	1
Internal Grinding	2	Surface Grinding	1

Major Clients

Pratt & Whitney Canada
Rolls Royce
Northern Telecom
Imperial Tobacco

Employees (1986) **Total: 18**
 Engs. & Tech.: 1 **Shop personnel: 15** **Admin.: 2**

Total Sales (1986) From \$1 to \$5 million

Plant Size 12,000 Sq. Ft.

VIDE ET TRAITEMENT CANADA INC.

1380, Graham Bell
Boucherville, Québec
J4B 6H5

Contact: Gérard Deneau
Normand Guertin
Telephone: (514) 655-4051
Telex: 05-267624
Fax: (514) 655-5189

Company founded in 1987

Capabilities

Vide et Traitement Canada is involved in the field of vacuum heat treating (annealing, solution anneal, hyperquenching, aging) vacuum brazing and ionic nitriding.

Quality Standards

MIL: H 6875
Others: P & WC

Precision Machinery

Other Automated or Specialized Equipment

2 Vacuum furnaces with maximum loads of 800 and 1100 pounds
1 Vacuum ionic nitriding furnace with a maximum load of 200 pounds

Major Clients

Pratt & Whitney Canada
Vestshell Inc.

Employees (1986) Total: 7
Engs. & Tech.: 1 **Shop personnel:** 3 **Admin.:** 3

Total Sales(1986) From

Plant Size 3,000 Sq. Ft.

VIRTUAL PROTOTYPES INC.



5252, De Maisonneuve West
Suite 318, Montréal, Québec
H4A 3S5

Contact: Eugène Joseph, President
Telephone: (514) 483-4712
Fax: (514) 397-7494

Company founded in 1980

Capabilities

Virtual Prototypes Inc. has unique capabilities in the area of rapid prototyping and simulation as applied to aerospace and defence.

Vaps (Virtual Prototyping system) is a rapid prototyping tool for the development of man-machine interface and associated software for complex display and control systems especially avionics, naval consoles and other weapons and commands, control and communication systems. Vaps provides a capability to build trainers for such systems at a lower cost and faster than through conventional methods.

Quality Standards

MIL: STD-2167

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

Silicon Graphics: Rapid 1987

Iris Work Stations: Prototyping System

Major Clients

Department of National Defence (Canada)

Major U.S. Aerospace Firms

Transport Canada

Employees (1986) **Total:** 19
Engs. & Tech.: 16 **Admin.:** 3

Total Sales(1986) From \$0.5 to \$1 million

Plant Size 7,000 Sq. Ft.

1

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VIVE INC. (ATELIER D'USINAGE)



10,791, Alfred Ave.
Montréal-North, Québec
H1G 5B2

Company founded in 1982

Contact: Jose Luis Velar
Valentin Franchini
Telephone: (514) 327-9242
Fax: (514) 327-4178

2

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Capabilities

Atelier d'Usinage Vive specializes in manufacturing molds for the lost wax and lost foam process. These molds serve for producing castings for the aircraft industry (civil and defence). It also manufactures drill jigs, targeting fixtures, checking fixtures and press tools or sizing fixtures.

Precision Machinery

CAD/CAM Computer-Assisted Programming Capability

Zenith AT 40Mg H.D. Mathematical coprocessor
Autocad 2.6

Numerical Control Machine Tools

Do-All CNC Milling Machine, 3 Axis. Haidenhain Control.

Other Automated or Specialized Equipment

E.D.M. Metba. Max-Puls 1.

Conventional Machinery

Milling	15	Pantographs	2
Turning (Lathe)	4	Drill Presses	5
Surface Grinding	2		

Major Clients

CANADA

Cercast Inc. Cercor
Shellcast Foundries Inc.
Eastern Precision Inc.
Vestshell Inc.

U.S.

Arwood Corp. , P.F.I.
Hemet of Florida, Howmet Turbine Components
Tec-Cast Inc.
Atlantic Castings
Israel: Cabiran

Employees (1986) Total: 17

Engs. & Tech.: 2

Shop personnel: 12

Admin.: 3

Total Sales(1986) From \$0.5 to \$1 million

Plant Size 7,500 Sq. Ft.

NOTES

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Expansion

Expansion industrielle
régionale



Industrie
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