

# Manufacturing / Aerospace

## Sector Profile



**CENTRAL  
OKANAGAN**  
ECONOMIC  
DEVELOPMENT  
COMMISSION

# Manufacturing/Aerospace

## It's All Here Now

The Central Okanagan, with a growing population, an international airport, and a competitive housing market, is the largest trading area between Vancouver, BC and Calgary, AB, Canada. The region offers a wide variety of activities, two public post-secondary institutions and seven unique communities to explore or call home. With less traffic and a lower cost of living than major cities – in fact, the Central Okanagan was named the most Cost Competitive Region in the Pacific by KPMG in 2016 – you can spend your spare time and money on a life you enjoy. With a collective attitude and culture that fosters entrepreneurship the possibilities are endless in the Central Okanagan. It's all here, now.

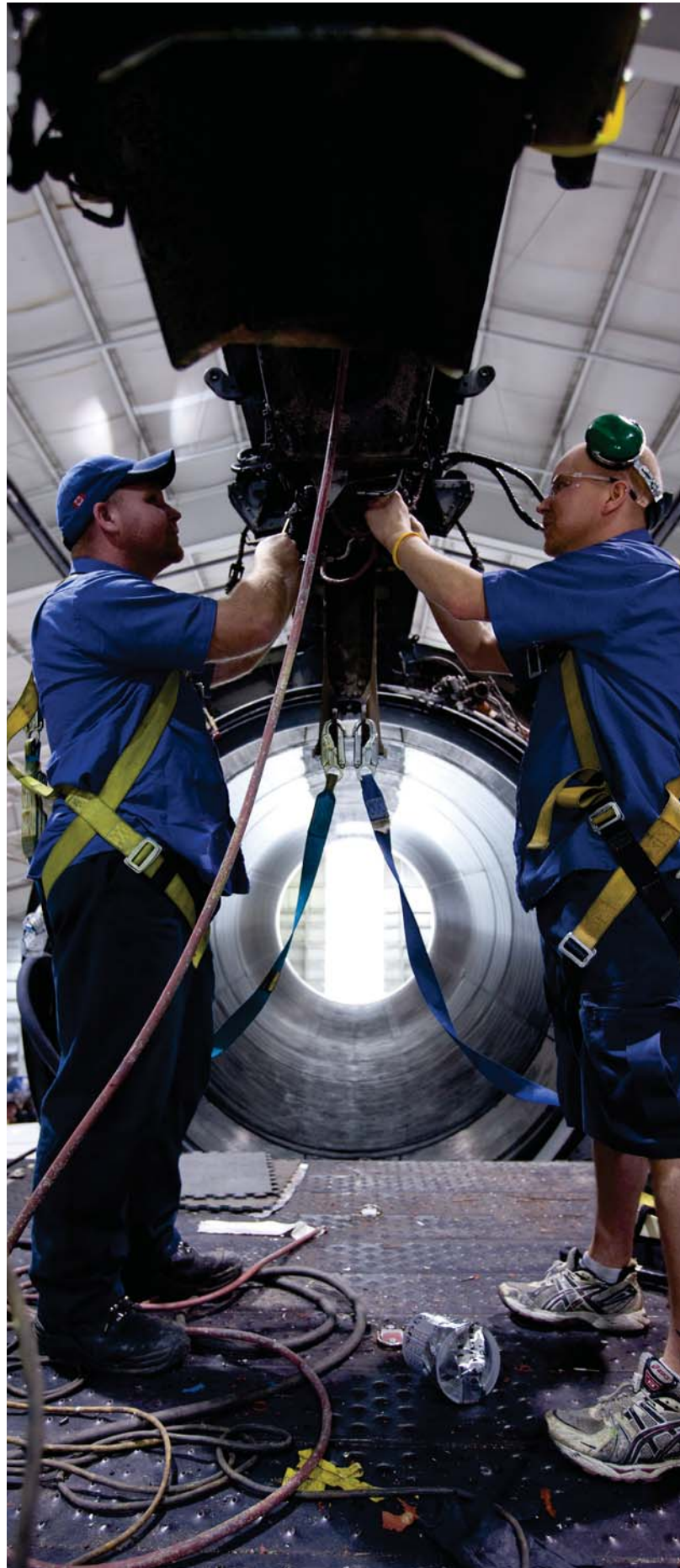
## Sector Overview

The Central Okanagan's diverse manufacturing sector comprised of 609 manufacturing firms with 5,760 employees<sup>1</sup> ranges from the traditional such as agri-food and wood product processing to high-tech aerospace, with metal, plastic, wood, concrete and fiberglass products. Manufacturing in the Central Okanagan benefits from the dry climate which is ideal for fiberglass/composite and wood manufacturing.

Fabricated metal manufacturing, non-metallic mineral manufacturing, transportation equipment manufacturing, plastics and rubber products, and beverages are anticipated to lead the way in growth as the manufacturing industry in the region continues to expand. The cross section of manufacturers makes it easy for existing and new businesses to find high quality supply partners locally.

The Central Okanagan is home to a growing segment of well-established and new aerospace companies and suppliers. Maintenance, repair, overhaul/in-service support, rotary wing, and avionics are well represented, and there is an increasing number of companies offering a diverse range of products and services and supported by the Kelowna International Airport. The region is also benefiting from [The Digital Technology Supercluster](#) part of the Government of Canada's Innovation Supercluster Initiative investing up to \$950 million to support business-led innovation superclusters with the greatest potential to energize the economy.

Other resources available from [The Regional District of Central Okanagan's Economic Development Commission](#) (COEDC) with support from Global Affairs Canada and the Kelowna International Airport (YLW), about the Aerospace sector include [Central Okanagan Aerospace Core Competencies Study](#), [Asset Map](#) and [Regional Database](#).





# Industry Highlights

## Manufacturing

- BC has one of the largest manufacturing sectors in Canada with 7,232 companies with employees<sup>1</sup> and sales of over \$51 billion in 2017<sup>2</sup>
- There are 609 manufacturing firms in the Central Okanagan Employing 5,760 people<sup>3</sup>
- BC shipped over \$8 billion in processed food and beverage products in 2017<sup>4</sup>
- BC wood product manufacturing sales reached \$10 billion in 2016<sup>5</sup>
- Access to the Digital Technology Supercluster funding and collaborative partnerships
- Kelowna named the best city to open a small business by the Canadian Federation of Independent Business in 2018



## Aerospace

- BC has one of the largest aerospace sectors in Canada<sup>6</sup>
- Aerospace in BC generates \$2.4 billion in revenue and \$ 1.3 billion in GDP annually while directly employing more than 8,000 people and supports another 14,300 to 19,800 jobs indirectly<sup>7</sup>
- 18% of BC aerospace companies are located in the Central Okanagan – with local companies ranging from aircraft servicing to high tech components
- BC is a world leader in forest fire fighting, search and rescue and film aircraft, creating a niche capability which is heavily exportable<sup>8</sup>
- BC shipped over \$580 million in aerospace products and parts manufacturing in 2017<sup>9</sup>
- The Consortium for Aerospace Research & Innovation in Canada, a federally-funded non-profit organization, supports collaborations with industry and leads R&D projects to advance aerospace in Canada
- Kelowna International Airport (YLW) is the 11th busiest airport in Canada with 1.9 million passengers annually
- Geographic proximity to the thriving Asia Pacific Aerospace market and the Boeing final assembly line in Washington State, USA<sup>10</sup>



1 Canadian Business Counts, with employees, December 2017  
2 B.C. Manufacturing Sales (Shipments) by Industry (annual data, monthly survey)  
3 Statistics Canada, Census 2016  
4 B.C. Manufacturing Sales (Shipments) by Industry (annual data, monthly survey)  
5 Province of BC, 2016 Economic State of BC Forest Sector  
6 BC Aerospace Ministry of Jobs, Trade and Technology  
7 BC Aerospace Ministry of Jobs, Trade and Technology  
8 AIAC Pacific  
9 B.C. Manufacturing Sales (Shipments) by Industry (annual data, monthly survey)  
10 Central Okanagan Economic Development Commission, Aerospace Core Competencies Study, 2017

# Manufacturing/Aerospace

## Employment Data

Industry - 31-33 Manufacturing	
CD* Total	609
CD* with Employees	318
Provincial Total	13,315
Provincial - with Employees	7,232
CD* % - Total	2.4%
CD* % - with Employees	3.9%
Provincial % - Total	2.4%
Provincial % - with Employees	4.0%

Source: Statistics Canada, Business Counts Survey, December 2017  
\* Central Okanagan Census Division

Central Okanagan	Manufacturing
Total Businesses	609
W/O Employees	291
W/Employees	318
1-4	117
5-9	69
10-19	62
20-49	47
50-99	12
100-199	5
200-499	6
500+	0

Source: Statistics Canada, Business Counts Survey, December 2017



## Wage and Salary Information

### Aerospace Occupations

NOC	Median Wage Thompson Okanagan	Median Wage British Columbia
7315 - Aircraft mechanics and aircraft inspectors	\$34.00/HR	\$34.00/HR
2232 - Mechanical engineers	\$42.31/HR	\$42.31/HR
2133 - Electrical and electronics engineers	\$38.46/HR	\$38.46/HR

Source: Economic and Social Development Canada, Wage Report, 2018

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## Top 10 Employers Aerospace

Name	Industry (NAICS)	# of Employees
KF Aerospace	Aircraft maintenance services & flight training	800
Alpine Aerotech LP	Aircraft maintenance services & parts manufacturing	110
Carson Air Ltd.	Airline	104
Anodyne Electronics Manufacturing Corp.	Communication systems manufacturing	94
SKYTRAC Systems	Aircraft management software	36
Jupiter Avionics Corporation	Communication systems manufacturing	18
ASDAC C.N.C. Machining	Aircraft parts manufacturing	16
Okanagan Mountain Helicopter Ltd.	Air operator & aerial surveyor	12
Select Helicopter Services	Aircraft maintenance services	10
Stolairis Aviation Inc.	Aircraft maintenance services	7

Source: Central Okanagan Aerospace Regional Database



## Competitive Advantages

- Kelowna International Airport (YLW), the 11th busiest airport in Canada, serving approximately 1.9 million passengers annually and offering more than 60 daily non-stop commercial flights with nine airline partners
- The Central Okanagan was named the most Cost Competitive Region for business in the Pacific by KPMG in 2016
- Geographic proximity to key transportation routes (Port of Vancouver, YLW, YVR, YYC)
- Dry climate ideal for fiberglass/composite and wood manufacturing
- Kelowna named the best city to open a small business by the Canadian Federation of Independent Business in 2018

## Post-Secondary Support: Manufacturing

[The Survive and Thrive Applied Research \(STAR\)](#) facilities at the University of British Columbia Okanagan (UBCO) provide access to R&D, Equipment and Talent from the following labs<sup>9</sup>

- [New Product Design and Rapid Prototyping](#)
- [Advanced Materials and Fabrication](#)
- [Device and Materials Testing and Impact](#)
- [Mental Health and Human Performance](#)

[Composites Research Network Facility](#) at UBCO is a collaboration of academia and industry partners supporting the composites industry with support nodes throughout Western Canada.

[UBCO Materials and Manufacturing Research Institute \(MMRI\)](#) serves as a multi-disciplinary, inter-departmental research hub linking with other regional, national and international universities, industry partners and government research organizations.

## Post-Secondary Support: Aerospace

[The Learning Factory for Advanced Composites](#) is a joint initiative between the University of British Columbia Okanagan Campus, the Composites Research Network and the Avcorp Group. The consortium is developing a commercial production facility of composite aircraft parts in an environment that will collect sensor-based data to develop computational models of the composite manufacturing process.

[Aerospace Department and Aircraft Maintenance Engineer](#) programs offered by Okanagan College work directly with industry to train the next generation of skilled technicians. Commercial Aviation Diploma program at Okanagan College focuses on commercial aviation by providing students with business experience along with the aviation training required by Transport Canada.

Proposed development of an Aerospace Campus on land north of YLW envisioned to be a flexible-use facility that promotes a wide range of development opportunities for aerospace and related companies.

[Air-Hart Aviation Flight School](#) provides comprehensive Flight Training (commercial and private license) and Float Plane/Seaplane (floatplane rating and 50-hour bush course) as well as advanced Seaplane training.

[Okanagan Mountain Helicopters](#) offers comprehensive helicopter pilot training tailored to meet the needs and demands of commercial helicopter companies in Canada.

9 STAR Resources and Facilities [star.ubc.ca/resources-facilities/](http://star.ubc.ca/resources-facilities/)



# Manufacturing/Aerospace

## Supporting Agencies and Groups

[The Digital Technology Supercluster](#), located in BC, is part of the Government of Canada's Innovation Supercluster Initiative investing up to \$950 million to support business-led innovation superclusters with the greatest potential to energize the economy and will support technology industry acceleration. Supported by over 200 partners, including 25 post-secondary institutions, the Digital Technology Supercluster secured over \$500 million in committed private-sector funding. The supercluster is expected to have an economic impact over the next 10 years of more than \$5 billion in GDP and an expected 13,500 jobs.

[Industrial Research Assistance Program \(IRAP\) Pacific](#): The National Research Council of Canada Industrial Research Assistance Program (NRC-IRAP) supports small and medium-sized enterprises in Canada in building their technology and innovation capabilities.

[Aerospace Industries Association of Canada \(AIAC\)](#) collaborates with industry and government to develop products, services, programs and policies that enhance Canadian aerospace companies, helping industry to invest, innovate and develop best-in-class capabilities in the civil, defense and space sectors.

[Pacific Northwest Aerospace Alliance](#) is a coalition of aerospace companies that serve North America's largest commercial aerospace manufacturing cluster which is centered around the Boeing Company just outside of Seattle, Washington.

[Consortium for Aerospace Research and Innovation in Canada \(CARIC\)](#) a federally-funded non-profit organization dedicated to advancing the Canadian aerospace industry with regional offices across the country.

## Tax Incentives

Residents and businesses enjoy a financial advantage with the Central Okanagan's competitive tax climate. BC has the lowest provincial income taxes for individuals earning up to \$121,000. Canadian federal government corporate taxes are some of the lowest among the G7 countries.

BC provides a suite of provincial tax credits and exemptions to encourage business investment and innovation. A summary of these credits and exemptions is listed below, and may be found [here](#):

### Research and Development

- Up to 35% Scientific Research and Experimental Development (SR&ED) tax credits plus 10% Provincial top up.

### Investment Capital

- 30% refundable tax credit up to 60K per year on Venture Capital Corporation individual investment

- Corporations receive non-refundable credits without limit.
- Employee Share Ownership Plan, employees can invest and claim 20% of their investment up to \$2,000 per year.

### International Business

- Up to 100% refund of provincial corporate income tax for businesses in international lending, foreign exchange, management of international investments, treasury functions, factoring, administrative services, film distribution, and leasing property and insuring property outside Canada

### Registered Specialist Labour

- 100% refund of personal income tax paid by registered specialists recruited from abroad who perform qualifying work for the first two years, followed by partial refunds for the following three years.
- Up to a 75% refund of provincial corporate income tax on foreign earnings from eligible patents related to life sciences; power from wind, solar, and tidal sources; wastewater treatment and fuel cell technology.

### General Manufacturing

- No provincial sales tax on eligible machinery and equipment.
- Manufacturers recover the five percent federal value-added tax (GST) through input tax credits
- 50% per year straight-line depreciation method for manufacturing or processing equipment.
- Imports of advanced machinery and equipment are duty-free

Figure 1: Provincial and Federal Corporate Tax Rates, 2018

Communities	Small Corporate Tax Rate	General Corporate Tax Rate
British Columbia	2.0%	12.0%
Canada	10.0%	15.0%

Sources: TaxTips.ca, 2018

Figure 2: Municipal Mill Rates, 2018

Communities	Mill Rate, Residential	Mill Rate, Business	Mill Rate, Light Industry	Mill Rate, Major Industry
Kelowna	5.9038	14.8087	15.3971	28.5029
West Kelowna	5.8593	14.8301	14.7396	18.1937
Lake Country	5.4848	14.4566	23.1759	23.5347
Peachland	5.7165	13.0383	19.1122	5.2981

Sources: BC Stats, 2017





## Examples of Manufacturing Firms in the Central Okanagan

### Composite Materials

[FormaShape™](#) is recognized in the composites industry as leader in the application of Closed Molded Resin Transfer Molding technology. Founded in 1981, the company operates out of an ISO 9001 certified 80,000 square foot purpose-built facility, using lean manufacturing principles. Full Time Employees: 51-200

[Composites One](#) is a leading supplier of composites 8 materials in North America. Key products include over 200 aerospace specs including Boeing and Airbus, materials and equipment for composite manufacturing, technical and repairs, prepreg, adhesive, potting compounds, epoxy resins, honeycomb core, tooling boards and more. Full Time Employees: 15

[Campion Marine](#), a family run business, has been building quality boats for over 44 years and are Canada's largest independent boat builder. Full Time Employees: 64

### Food Processing

[Sun-Rype Products Ltd.](#) is a fruit-based food and beverage manufacturer located in Kelowna. Sun-Rype has been producing juices and fruit snacks for global and domestic markets since its foundation in 1946 and in 2018 was recognized by Export Development Canada as Exporter of the Year. Full Time Employees: 400

### Metal Manufacturing

[Reidco Metal Industries Ltd.](#) is a diversified, custom manufacturing company engaged in the fabrication of precision steel, stainless steel and aluminum products. Since incorporation in 1981, REIDCO has developed a highly skilled management and production team that has given the company a distinct reputation for consistently exceeding expectations for product quality, service and customer relations. Full Time Employees: 83

[Asdac Machine](#) provides machining and fabricating services for customers in the food, electronic, aerospace, marine, pulp and paper, recreation, dental, oil & gas, and houseware industries. Full Time Employees: 15

[Monashee Manufacturing](#) provides custom metal fabrication and production machining throughout North America since 1935 and produces its own line of truck snow plow assemblies. The company has supplied and serviced local, provincial and export markets from its present location in Kelowna since its incorporation and is the oldest established machine shop in Kelowna. Full Time Employees: 70

[Azimuth Solar Products Inc.](#) is a Kelowna-based manufacturer of mobile solar generators. They are also a reseller for cutting-edge power management systems, as well, as recreational solar products. Azimuth Solar Products' 2-axis, 360 degree, full-rotation, portable solar generator has four folding solar panels and lets you follow the sun for maximum input and one-day battery charging. Full Time Employees: 2

[Northside Industries](#), founded in 1967, has built a reputation for precision metal fabrication and manufacturing, thanks to a skilled team and a commitment to quality and innovation. Serving Oil and Gas, Forestry and Agriculture, Environmental, Military, and Commercial and Residential Construction industries from design through to assembly and installation needs. Full Time Employees: 75

### Wood Manufacturing

[Gorman Bros. Lumber, Ltd.](#) a lumber mill that manufactures spruce and lodge pine pole boards, and fir pilings located in West Kelowna and founded in 1951. Full Time Employees: 250

[Tolko Industries Ltd.](#) manufactures and markets specialty forestry products including lumber, plywood, veneer and oriented strand board. With company headquarters in Vernon and one of their 16 production facilities in Kelowna, Tolko products are sold around the world. Full Time Employees: 3,500

[Geometrik](#) designs and manufactures wood acoustical ceiling and wall panels combining noise control and beauty. With a portfolio that includes University of British Columbia's law building, Twitter Headquarters, the Stanford University law building, and the Surrey Olympic Games Preparation Centre they have experience serving clients across North America and Europe. Full Time Employees: 40

## Examples of Aerospace Firms in the Central Okanagan

[Anodyne Electronics Manufacturing Corp.](#) (AEM) designs and manufactures specialized communication systems and products for various special role aircraft, including police, EMS, SAR and firefighting. AEM also designs, manufactures and refurbishes illuminated panels and display products. Full Time Employees: 94

[Alpine Aerotech LP](#) provides comprehensive worldwide helicopter support, aircraft maintenance services and parts manufacturing. Full Time Employees: 130



# LOCAL SUCCESS STORIES



## We're All About the Craft

It's all here now in the region's aerospace sector. [KF Aerospace](#) has been providing specialized aerospace maintenance, engineering, training and related services since 1970. With four business divisions –KF Aerospace Maintenance and Engineering, KF Aerospace Defence Programs, KF Cargo and KF Leasing – KF offers its clients true, one-stop service. KF can fly, maintain, modify, engineer, paint and train both crew and mechanics. KF now completes heavy maintenance and/or modifications on over 150 aircraft annually and in 2009 KF was awarded a contract to maintain and modify the Buffalo and Twin Otter Search & Rescue aircraft based in Western Canada. Full Time Employees: 800



## Performance. Yields. Quality.

A lot is happening in the advanced manufacturing sector and [Vitalis Extraction Technologies Inc.](#) is a great example of getting in on the ground floor. Started in 2014 as a knowledge partnership and officially founded as a business in 2016 Vitalis Extraction Technologies Inc. manufacture industrial Supercritical CO2 extraction systems that can extract wax, fats and oils from botanical products. This local Kelowna based company is a global leader in industrial applications within the international botanical oil extraction industry for Cannabis. They recently reached the top 5 finalists for Best International Trade Small Business BC Award as well as being awarded the Top Extraction Equipment at the 2017 Lift Canadian Cannabis Awards. Full Time Employees: 40