



**AIT Canada** – Contract Design and Manufacturing

# Customized Precision. Superior Results.



**INDUSTRIAL AUTOMATION** Fabricated, installed, and maintained by AIT Canada.

**A**dvanced Integration Technology (AIT) Canada manufactures a broad range of custom equipment, machines, and finished materials used throughout the world.

**AIT CANADA FACILITIES** AIT Canada head office conveniently located close to Vancouver and the U.S. border



In its 62,000-square-foot facilities conveniently located close to Vancouver and U.S. border, AIT Canada specializes in high-precision fabrication, machining, and assembly to serve emerging high-technology tooling needs. These include entire assembly systems, subassemblies, and individual components.

With on-site manufacturing and the highest aerospace industry standards, AIT Canada maintains strict quality and production control through the entire process, guaranteeing superior product quality and reliability. We are ISO 9001:2000 Certified.

Aerospace projects include fabrication of positioners for computer-controlled wing-to-body join systems, fuselage positioning systems, and vertical and horizontal stabilizer boring fixtures as well as automated fuselage assembly tooling.

### Range of Services

- Design and manufacture machines, equipment, and systems
- Manufacture prototypes for large production runs
- Develop custom replacements for obsolete equipment
- Modify, upgrade, retrofit, and reverse-engineer existing equipment
- Metrology services via laser tracker capabilities

### Fabrication and Welding

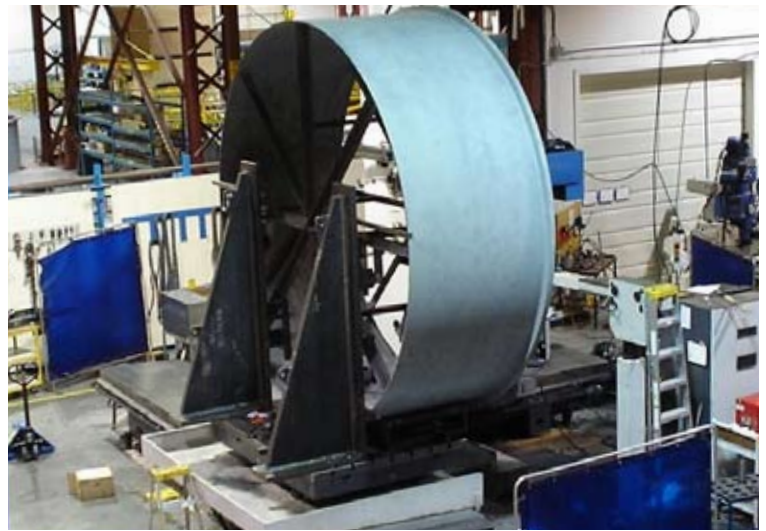
- 30,000-square-foot facility for high-precision fabrication metal components and parts.
- Processes include SMAW, GMAW, FCAW, and GTAW
- Standards include AWS and CWB
- Materials include steel, aluminum, stainless steel, titanium, invar, and copper alloys

### Machining

- Fully equipped 7,500-square-foot machine shop
- 5 CNC and 3 manual mills, plus 1 CNC and 1 manual lathe
- High-precision prototyping or production machining

### Assembly and Testing

- Clean 16,000-square-foot environment for assembly and testing
- High-precision mechanical assembly
- Installation of high- and low-pressure hydraulic and pneumatic systems
- Optical alignment and inspection using laser technology
- Static and dynamic load testing
- Certificates of conformance for load testing, or as requested by customer for assemblies



**MACHINE SHOP** ⬆ Comprehensive machining capabilities.



**ON-SITE FABRICATION AND WELDING** ⬆ 787 mandrel handler manufactured to Aerospace industry standards.

## Shop Equipment Specifications

### Plant 1

Machine Shop	Qty	Specifications
IKEGAI Horizontal CNC Boring and Milling Machine w/ Rotating B-axis Table	1	63" x 87" Table, 137" X Axis, 98" Y Axis, 63" Z Axis, 27" W Axis, 360 degree B-axis
FEMCO Horizontal CNC Boring and Milling Machine w/ Rotating B-axis Table	1	63" x 57" Table, 84" X Axis, 55" Y Axis, 31" Z Axis, 22" W Axis, 360 degree B-axis
KAO MING, Double Column 4-Axis Vertical CNC Machine Center	1	157" x 83" Table, Bridge height 36"
DAEWOO Vertical CNC Machining Center	2	50" x 25" Table, 50" X Axis, 25" Y Axis, 26" Z Axis
DAEWOO Puma CNC Lathe	1	12" Turning Diameter, 10" X Axis, 27" Y Axis, 360 degree C Axis, Live tooling
FORTWORTH Vertical Milling Machine with Digital Readout	1	58" X Axis, 24" Y Axis, 28" Z Axis
FORTWORTH Universal Milling Machine with Digital Readout	2	30" X Axis, 24" Y Axis, 28" Z Axis, w/ Horizontal spindle
TRENS Lathe with Digital Readout	1	16" Turning Diameter over saddle, 26" over bed, 36" with gap out 120" between centers
SHARP Radial Arm Drill	1	36" Swing x 36" High
Assembly Shop	Qty	Specifications
FARO Laser Tracker	1	2,760" Diameter range, 0.001" 3-D single-point accuracy
Loading Bays	Qty	Specifications
Loading Bay Doors	1	18' wide by 13' 7" high
Bay Doors	2	12' wide by 13' 7" high
Cranes	Qty	Specifications
Bridge Crane	2	5 Ton, hook heights: 18' & 18'-2"
Bridge Crane	2	16 Ton, hook heights: 16'-7" & 17'-5"
Jib Cranes	3	1 Ton





**What We Do**

**Aerospace**

- Automated Fuselage Assembly Tools
- Aircraft Positioning Equipment
- Computer-controlled Fuselage/Wing-to-Body Join Systems;
- Horizontal and Vertical Stabilizer Boring Fixtures
- Aircraft & Helicopter Working Platforms and Transportation Systems
- 5-Axis Hoop Driller

**Energy - Power Generation**

- Skid Assembly for Power Plant
- Mechanisms
- Structures & Platforms
- Advanced Mechanical Engineering

**Marine**

- Ferry Ramp
- Propeller Housings & Hubs
- Propeller Blade Repairs
- Radar Structures

**Heavy Industry**

- Housings (Gearbox, Winch)
- Heat Exchanger Plates
- Foundry Burner Plates
- Machinery & Platforms



**CNC MACHINING** ↗



**MAJOR FABRICATION** ↗ Replacement ramp for car ferry.

**Plant 2**

Fabrication Shop	Qty	Specifications
Messer Edgemaster Hi-Def Plasma Cutting Machine	1	120" x 314" water table, Max plate size: 8ft X 20ft (96" x 240") Plate thk (up to) Hi-def plasma (dross free): MS - 1-1/4"; SS - 1"; AL - 1" Max Hi-def plasma: 2", Max oxy-fuel torch: 6"
Geka Hydracrop Ironworker	1	88 ton punching, 165 ton cutting
Cosen Horizontal Bandsaw	1	Max 13" Diameter or 11" x 18" Rectangle
Lincoln Multi-Process Power Wave Welder	6	
Miller TIG/Stick Welder	1	
Miller MIG Welder	3	
Lincoln Plasma	1	
Hypotherm Plasma	1	
Loading Bays	Qty	Specifications
Loading Bay Doors	3	16' wide by 13' 7" high
Cranes	Qty	Specifications
Gantry Crane	1	5 Ton, hook height 13'-3"
Bridge Crane	1	5 Ton, hook height 14'-2"
Gantry Crane	1	2 Ton
Jib Cranes	6	1 & 2 Tons



**AUTOMATED ASSEMBLY LINE** ⚡ Built in Canada installed in a German manufacturing plant

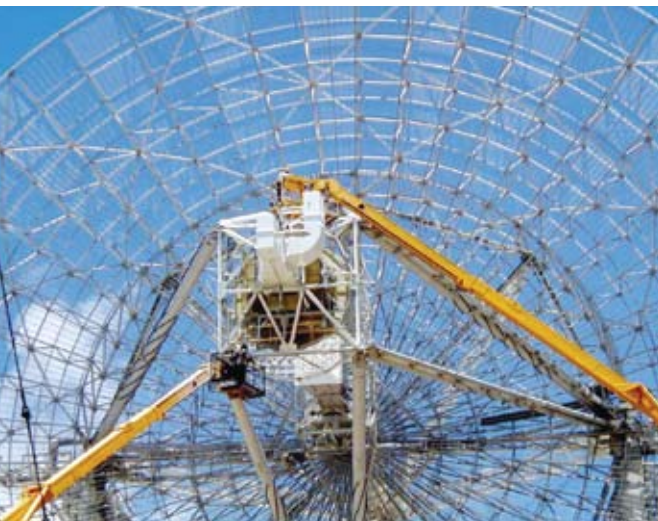


**VOUGHT FABRICATION CART** ⚡ Autonomous transportation systems for factory automation.



**A380 SECTION 19** ⚡ Fuselage Assembly Tools for Airbus in Spain.

**When we deliver a system,  
it's a whole system  
not just the hardware!**



**RAYTHEON RADAR STRUCTURE** ⚡ Radar structures for U.S. Navy.

**Certifications and Capabilities**

- Qualification and Certs:** Airbus Tooling Offload Certified  
Boeing Tooling Offload Certification D6-56202  
GKN Westland Tooling Offload Certification PSL00009  
Raytheon Approved (Critical Supplier for N&MIS)  
SMAW, GMAW, FCAW, and GTAW Process Certified  
ISO 9001:2000 Certified
- Materials:** Aluminum, carbon fiber, stainless steel, invar, titanium, and other exotics
- CMS:** Laser Tracker, Optics, Surface Tables, Assorted Metrology Tools (Dials, Calipers, Height Gauges)
- CAD Equipment:** CATIA V4 and V5, AutoCad 2000, AutoCad Mechanical Desktop, SolidWorks, FEA, Algor STA Package, ProE



**Contact Us**

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**About AIT Canada**

Advanced Integration Technology (AIT) Canada designs, engineers, and manufactures a broad range of custom equipment, machines, and finished materials used throughout the world. With on-site manufacturing and the highest aerospace industry standards, AIT Canada maintains strict quality and production control through the entire process, guaranteeing superior product quality and reliability. ISO 9001:2000 Certified. Learn more at [www.aint.com](http://www.aint.com)





**O**ur **precision-engineered technology** and automation have **enhanced** the industry's ability to manufacture high performance products in **less time** and with **greater exactness and flexibility**.

Advanced Integration Technology (AIT) Canada is a leading industrial automation company for high performance products and systems. We support sectors like Aviation, Power Generation, Marine, Heavy Industry.

The company works at international level and is focused Automated Machines, Equipment, Systems and Tooling.

**We deal with:**

- Project Management
- Design & Engineering
- Fabrication & Welding
- Machining
- Assembly & Testing