



**Succeeding and Growing Together –
Design / Build / Supply Chain / Academia / Government**

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MHI High-Level Overview

Mitsubishi Heavy Industries – Around the World

annual consolidated revenue/

USD \$40 BILLION*

sales outside of Japan/

55%*
OF OVERALL SALES

operating income/

USD \$3 BILLION*

7.6%*
PROFIT MARGIN

global accolades/

THOMSON REUTERS

TOP 100 GLOBAL INNOVATORS 2015

(4TH CONSECUTIVE YEAR)

employees worldwide/

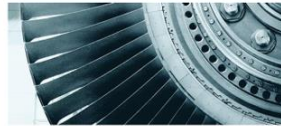
84,000*

MHI GROUP CONSISTS OF OVER **300** DOMESTIC & OVERSEAS COMPANIES

innovation/ **14,045 PATENTS GLOBALLY**

[OVER 7,400 DOMESTIC AND 6,600 OVERSEAS PATENTS AS OF 2014]

MHI Products



ENERGY



AIRCRAFT



SPACE



SHIP & OCEAN



TRANSPORTATION



MATERIAL HANDLING



ENVIRONMENT



AUTOMOTIVE



INDUSTRIAL MACHINERY

MHI Defense

Fighter Aircraft



Guided Weapons Systems



Naval Ships



Specialty Vehicles



MHI Commercial Aircraft

Whole Aircraft



~'80 ~'90 ~'00 ~'10 ~'20

Tier 1 Products



Mitsubishi Heavy Industries Canada Aerospace

a group company of



Our Locations

a group company of
MITSUBISHI
HEAVY INDUSTRIES, LTD.



MHICA Main Factory
Total: 250K SF + Office: 20K SF



↑
Linked
↓



New Linked 206K SF Building – Nov 2019

Employees	
Number of Employees	800 (additional 3,600 In-Direct at Supply Chain)
Union	Non-Unionized
Shift	2 Shifts (3 Shifts for Autodrill)

Industry, Academics, and Government Affiliations

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HEAVY INDUSTRIES, LTD.



Programs

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Bombardier Global 5000 / 5500 / 6000 / 6500

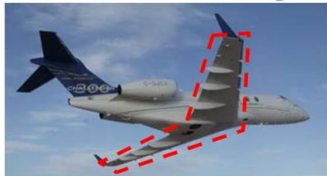


Work Package: Wing and Centre Fuselage

Structural Assembly
Wing/Center Fuse Joint (Pre-fit),
Flight Control Installation and Riggings,
Systems Installation and Test

Wing Span: 28.7 m (94 ft.)
Wing Area: 94.9 m² (1,021 ft²)
High Speed Cruise: Mach 0.88
Max. Altitude: 51,000 ft.
Max. Range: 5,200 nm (G5000) / 6,000 nm (G5000)

Bombardier Challenger 350



Work Package: Wing

Structural Assembly, Systems
Installation and Test

Wing Span: 21 m (69 ft.)
Wing Area: 48.5 m² (522ft²)
High Speed Cruise: Mach 0.82
Max. Altitude: 45,000 ft.
Max. Range: 3,200 nm

MHICA Supply Chain

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HEAVY INDUSTRIES, LTD.



82 Supply Chain Partners & Growing

Succeeding & Growing In the Aerospace Industry Requires Wide Scale Coordination, Collaboration and Engagement.

- **Market & Technology Driven for Design / Build:**
 - Flexible, Timely, Consistent, Competitive
- **Continuously Improve Existing Products:**
 - Ensure a Strong Base and Visibility
 - Assess and Adopt New Technologies and Methodologies
 - “Arsenal Approach”
 - Add New Existing Platforms – Broaden Market
- **Prepare & Position for Future Platforms:**
 - Technology and Methodology Roadmap
 - Customer Engagement
 - Certification Requirements
 - Price Points
 - Competitive Threats

All of The Above Requires All Stake Holders in Unison.

Supplier Development:

- Supply Chain and Sourcing
 - Move Towards Supplier Development:
 - Engineering / Quality / Procurement
 - Technology Enhancement
 - Broaden Supply Base, Super Cluster Approach
 - Virtual Tier One (VTO)
-
- **Academia:**
 - Public School and High School Out-Reach
 - Colleges and Universities:
 - Industry Advisory, Co-Op, Guest Lectures, Plant Tours
 - Future Employees, Grow Company / Province / Country
 - Joint Research, Include Supply Chain
 - Shared Resource for Industry
 - Train Together – OEM / Tier 1 / SME
 - Lead-In and Custom Training
 - Prepare For the Future:
 - Industry 4.0 / Circular Economy / Advanced Technologies

Government:

Municipal / Provincial / Federal / Foreign:

- Critical to Engage & Coordinate with All 4 Levels
- Huge & Knowledgeable Resources
- Support for Global Activities:
 - Air Shows, Conferences
 - Cost Effective Global Visibility

Certification for Current and Future Products:

- Environmental Impact
- Continuously Evolving & Improving
- Ensure You are Ahead of the Curve
- Industry Association Inputs – Design / Build / Operate / Maintain
 - Policy Development & Implementation

Trade Agreements:

- United States-Mexico-Canada Agreement (**USMCA**)
- Comprehensive Economic and Trade Agreement (**CETA**):
 - Canada and European Union
- Comprehensive and Progressive Agreement for Trans-Pacific Partnership (**CPTPP**):
 - Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore and Vietnam.
- European Union and United Kingdom (in work)

THANK YOU FOR YOUR ATTENTION

MOVE THE WORLD FORWARD

**MITSUBISHI
HEAVY
INDUSTRIES
GROUP**