

Trade Mission to Australia

27 -30 March 2017

Company Profiles

About Automation Alley and the Trade Mission

[Automation Alley](#) – a leading non-profit technology and manufacturing business association in the State of Michigan. Has more than 1,000 businesses, educational institutions and government entities as members. Connects industry, academia and government and has a specific focus on innovation and technology.

The mission of Automation Alley is to maintain Southeast Michigan's position as the leading applied technology and innovation region in the world. Foundation members include General Motors; FCA (Fiat Chrysler Automobiles); Autodesk; Salesforce; Siemens; Michigan Economic Development Corporation; National Automotive Centre; Central Michigan University etc.

Noel Nevshehir, Director of International Business Services will travel to Sydney and Melbourne during the week of 27th March with four companies from the region to investigate opportunities for collaboration and partnership with organizations in Australia with a particular focus on innovation around technology in the automotive; defense/aerospace & logistics sectors.



Commander Innovations

Commander Innovations
*Solutions for systems, vehicles, platforms
equipment, and humans
which
enhance protection and security*

Area of expertise

KEY TECHNOLOGIES:

Fire Protective Coating, Advanced Hybrid Composite for light weighting armour*, Lithium Battery Safety System and Scalable repairable human body protection

Seeking in Australia

Opportunities to introduce their new technologies and coatings
Avenues for collaboration re lightweighting body and vehicle armour
Discussions re uses of their new coatings under license with manufacturers
Understanding of the landscape and regulations and testing environment in Australia

Company profile

Based in Michigan US, Commander Innovations is passionate about maturing innovative technologies that support the advancement of the United States in the areas of safety and survivability, lightweighting automotive components and transitioning commercial-off-the-shelf components to military and aerospace domains. Expertise in automotive product launch and design, defense armor specialization, reliability, training, supply chain management and more.

KEY DIFFERENTIATORS

Industry-exclusive fire-protective coating tested to 2,000°F and met the test objective; no vapors, smoke, or additional flame

Energy absorption adhesive can be applied to metals, plastics and other surfaces to reduce the transmission of energy

Composite vehicle protection technology is 30% lighter and 25% less cost than the high-hard steel equivalent

Human Body protection technology is lighter and less costly than Kevlar-Dynema® plates, multi-hit capability, and field repairable / scalable

Transparent protection technology is lighter, thinner, less costly and scalable to evolving threats

Deployable light-weight bridge for light wheeled tactical vehicles

Light tactical vehicle design with Advanced Hybrid Composite (AHC) protection

Vehicle systems engineering experts developed light-weight tactical vehicle design with AHC protection capability

OUR TECHNOLOGIES

- 01 FIRE PROTECTIVE COATING**
Low cost, easy to apply/spray on a variety of surfaces
- 02 ADVANCED HYBRID COMPOSITE**
Advanced hybrid composite (AHC) offers significant improvements in vehicle protection with reduced weight, increased payload, improved mobility and lower lifecycle costs
- 03 LITHIUM-ION BATTERY SAFETY SYSTEM**
Self contained battery enclosure with battery management system (BMS), that provides absolute thermal run-away protection, at 1/3 cost and mass of current released systems.
- 04 SCALABLE, REPAIRABLE HUMAN BODY PROTECTION**
Lighter weight proven to withstand multiple rounds without replacement.

ABOUT COMMANDER INNOVATIONS

Commander Innovations is a Michigan-based, leading woman-owned small business. We are passionate about maturing innovative technologies that support the advancement of the United States in the areas of safety and survivability, light-weighting automotive components and transitioning commercial-off-the-shelf components to military and aerospace domains.

We have two primary locations for conducting business. The headquarters including the board of directors is located in Holly, Michigan, with research and development for our technologies in St. Petersburg, Florida.

KEY SUCCESSES

- Successfully tested vehicle protection, transparent protection and body protection in laboratory environments; TRL 5, MRL 4
- Successfully tested fire protective coating in lithium-ion battery enclosure environment to FAA and SAE standards
- Successfully tested energy absorbing material in a laboratory environment, TRL5, MRL 4
- Team members executed recent large DoD program
- Deployed Systems Engineering Best Practices

OTHER PROJECTS IN DEVELOPMENT

- “Flubber-like” energy absorbing adhesive Survivable ISO Container Shelters
- Advanced lightweight tactical vehicle design with improved protection
- Currently designing an advanced lightweight bridge launcher
- Launching a lightweight tactical vehicle featuring advanced hybrid composite survivability

Company Representatives Biographies

The company collectively has 175-years’ of experience in Systems Engineering, Product Development, Systems Software, Systems Safety and Manufacturing on large and small programs. Their expertise is used to deploy consulting, mentoring and training services to support the development of the future.

Kevin Griffin, President:

- 36+ years systems engineering, systems architecture and software embedded controls and for aerospace, land, marine and commercial applications
- Work experience includes: AM General LLC, Cobham Defense Systems, DRS Test and Energy Management, SAIC, General Dynamics, McDonnell Douglas Aircraft, Link Flight Simulation Co., Lockheed Space Operations, Co., Rockwell International
- B.S Aerospace, Kent State University
- Engineering background includes the following systems: U.S Space Shuttle, Space Station, Apache Helicopter, and Avionics for McDonnell Douglas now Boeing Aircraft. Military Combat vehicle experience includes Abrams, Manned Ground Vehicles, HMMWV, and Ultra-Light Tactical Vehicles

Ketan Shah, Director of Manufacturing

- 35+ years manufacturing and integration engineering experience: led and supported GM manufacturing operations around the globe including Mexico, Uzbekistan, China, India, Ontario Canada and Michigan
 - Work experience includes Reliatrain LLC and General Motor
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Fullerton Tool Company Inc.

Guaranteed Profit Maximization

www.fullertontool.com



Brief Company Profile

ISO 9001:2008 Certified Manufacturer of high performance carbide cutting tools incl. end mills, drills, burs etc. key industries include aviation, aerospace, medical and other high performance manufacturing. Family owned and operated for over 70 years (est. 1942). The company has over 45 CNC machine and 174 employees (including an in-house R & D team) operating two facilities totalling over 6,500 sq. meters.

Experience and clients

Ongoing positive relationships with international manufacturers - **Boeing, Lockheed Martin and Safran** including **custom tooling manufacture** and tool development.

Other clients include: **Gulf Stream, Chrysler and GM.**

Seeking in Australia

- Whilst in Australia Fullerton will be meeting with existing contacts and are very interested in exploring new opportunities with end customer and potential distributors.
- Distributors will be suppliers to the aerospace and wider engineering industry specifically in regards to cutting tools.
- End customers will be precision manufacturers supplying the aerospace, medical and automotive industries etc. Will likely have high level CNC machining capability. Also may have general tooling and cutting machines e.g. Lathes and drill presses not necessarily CNC.

Products: End Mills, Drills, Reamers; Key seat Cutters; Saws; Burrs; Countersinks; PCD Tooling; Custom Tooling, Advanced Composite Tooling range

Industries: Aerospace; Medical; Military, Power Generation, Mold & Die, Heavy Equipment, Automotive Agriculture

References

Lockheed Martin (US) Daniel R. Thomas, Production

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Gulfstream (US)

Danny Smalley, Materials Manager, Tool Crib

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Boeing (US)

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Documents for Download



2016 MATRIX Advanced Composite Tooling [Brochure](#)

Other catalogues for download (all available [here](#)) include:

- [2015 Fullerton Full Catalogue](#)
- [2016 Fury Flyer](#)
- [2016 Fantom Flyer](#)
- [2015 PCD Tooling Flyer](#)



MPI (Managed Programs)

Full-service engineering firm specialized in product development & manufacturing of lightweight engine components with expertise in plastic and carbon

www.managed-programs.com



Brief Company Profile

MPI is a Global Product Development Company focused on automotive turnkey solutions for underhood systems and components. Founded in 1997. Headquarters in Auburn Hills, Michigan with offices in Korea, Germany and China. Product development offices in 3 separate areas of the world allowing 24 hours design/engineering.

Decades of Engineering and Manufacturing experience from GM, Ford, Siemens, Kia, Visteon, BASF, Tecumseh Products, Corning, Boeing, and Kaetech.

- Low volume production parts at high volume part cost
 - NylonMold technology ~ low cost tooling, production nylon parts
 - Semi-automated & Fully-automated assembly systems
 - Flexible production assembly lines.
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Seeking in Australia

MPI are seeking to explore opportunities for collaboration with manufacturers, distributors and R&D centres in the automotive and marine industries. MPI can develop new products to be made in Australia with their support and offer engineering and product development services especially in the **Plastic and Carbon or Lightweight product areas.**

Client Base and Customers

MPI's client base includes OEMs, Tier 1s & 2s, Performance aftermarket, and Motorsports.

Providing low cost manufacturing solutions - developing the appropriate production tooling and equipment suited for their customer requirements through the results of DFM and DFA practices.

MPI'S customers include **Competition Cams** (MPI supplies many custom developed parts and manufacture for the FAST division).

MPI also supplies to **Holly / MSD / Ford Racing / GM Performance** etc.

Products: Air Intake Manifolds, Air Induction, Cylinder Head Covers, Oil Pans, Oil Separation Systems, PEM Fuel Cell Development

Production Customer Base: Aftermarket Service Replacement, Aftermarket Performance, Marine & Specialty Vehicles.



Logos Logistics

3rd party logistics and supply chain management company

www.logos3pl.com



Brief Company Profile

Logos Logistics was founded in 2008 and is a 3rd party logistics and supply chain management company.

In 2009 Logos expanded its operations to include long and short haul courier solutions.

Services offered to customers include FIFO storage requirements, repacking and quality sorting which extends to an E-Commerce Fulfilment service.

Seeking in Australia

Logos Logistics is interested in meeting with:

- Australian online retailers, who have their own brand.

This company specialises in companies who wish to expand their business overseas and need a US fulfilment centre in order to ship globally. Logos has built a very good customer base with e-commerce companies overseas – especially those with no or few retail outlets, which sell online.

- Local couriers and logistics companies.

The company is seeking to meet with local couriers and logistics companies, who may have partnerships in place with local courier companies and who can deliver parcels to consumers with the objective of negotiating wholesale rates with these companies for high volume deliveries. Services required from the local companies will be to handle receipt of products and delivery to end-customers.

Logos Case Study



Logos manages holistic supply chain for an OEM supplier headquartered in South Korea. From pickup at origin in South Korea, based on customer's forecast and schedule, warehousing services which include inventory management, quality inspection and light assembly in Clinton, Tennessee, to daily shipment to final destination with JIT system, Logos provides integrated service from overseas to USA inland with single-point communication in our dedicated team.

