DESIGN & MANUFACTURING

MANUFACTURING. PROGRAM MANAGEMENT. DESIGN & ENGINEERING

RACKS THAT HELP BUILD BETTER VEHICLES.

Who Are We?

- Our vision is to cultivate a positive working environment where as expanding on our "CAN DO SPIRIT" catapulting the business inside and outside the automotive industry as well as globally.

- We are a METAL FAB manufacturing company focused in light and heavy fabrication. Our multiple facilities allow custom fab and production line high volume production.

- We primarily serve the Automotive industry with multiple manufacturing locations.
We are adding Engineering Services to our portfolio which include: Packaging, Manufacturing, Industrial Engineering, Tool Design, and Program Management.

- We offer Competitive Pricing, Robust Quality Processes, On time Delivery, Effective Timely Communication on Projects, and overall a commitment to integrity working together as a team.

- We have multiple manufacturing locations in three different countries – Canada, US (Tennessee), and México. Our strategic positioning of plant locations allows our customers to utilize the facility that provides lowest landed logistics cost.

- We understand the future of the auto industry in next three years poses a major challenge and opportunity for growth, expansion and increased market share.

Strategic Initiatives Required

- Manufacturing Investments.
  a) OEM's and Suppliers alike will invest "Billions" in plant upgrades, new buildings, and equipment to keep up with the trends.

- Vehicle Architectures improvement plan to avoid costly rework and delays.

- Program to hire more direct staff.

- Partner with strategic supplier that has tools and process to transform the way work is done today and tomorrow.
  a) Engineering, Design, and Collaboration.
  b) Manufacturing.
  c) NAFTA Locations.
  d) Program management.
  e) R&D Prototyping.

- ✓ MANUFACTURING INVESTMENTS
- ✓ TALENT REQUIREMENTS
- ✓ VEHICLE ARCHITECTURES
- ✓ SUPPLY CHAIN MANAGEMENT

Our Locations

We have **a full service** and **sustainable presence** in **3** **countries**.

- Ruthven, Ontario Canada. ✓
- Kingsville, Ontario Canada. ✓
- Sterling Heights Michigan, USA. ✓
- Lawrenceburg, Tennessee, USA. ✓
- Cuauhtémoc, Chihuahua, México. ✓
- San Juan del Río, Querétaro, México. ✓

About our Locations

Cuauhtémoc, Chihuahua , México Plant.

- Space – 87,000 square feet.
- Capacity – 600 racks per week.
- Attributes: close to Hermosillo Ass., Chihuahua engine plant, and Saltillo Assy El Paso border.

San Juan Del Río, Queretaro, México Plant.

- Space – 57,000 square feet.
- Capacity – 400 racks per week.
- Attributes: close to Edo. Mex. ,San Luis Potosí, Celaya, Irapuato, Guanajuato.

Lawrenceburg, Tennessee Plant.

- Space – 62,000 square feet.
- Capacity – 300 racks per week.
- Attributes: close to Kentucky Truck Plant, Spring Hill Plant within one hour of Chattanooga and Nashville.

Kingsville, Ontario Canada Plant.

- Space – 42,000 square feet.
- Capacity – 600 racks per week.
- Attributes: Detroit border

** Ruthven plant is 25,000 sq ft. – main admin./ engineering office, supports Kingsville plant.*

Equipment and Facilities

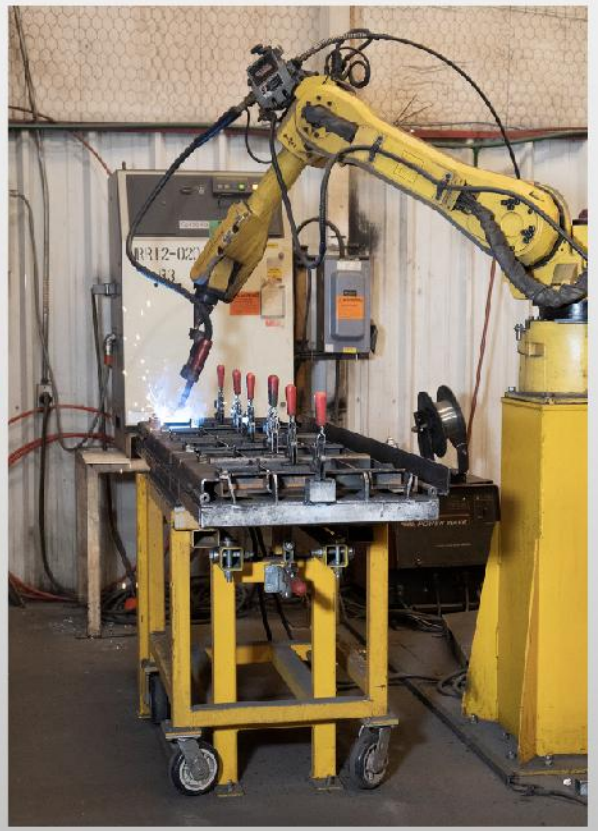
- 8 axis CNC press brakes.
- 40 Robotic Welding Machines.
- Open Area Outside Storage at each facility.
- High capacity cut to length saw.
- Liquid spray in paint booths (Tennessee facility has powder coat booth).
- CNC High Definition Plasma.
- 2 - AMADA - CNC Laser cut machines.
- 2 Trumpf Laser Machines.
- CMM Faro Arm – used for quality dimensional verification for robot load/unload systems.
- 3D Printing – prototype dunnage and parts.





Robotic Welding Equipment

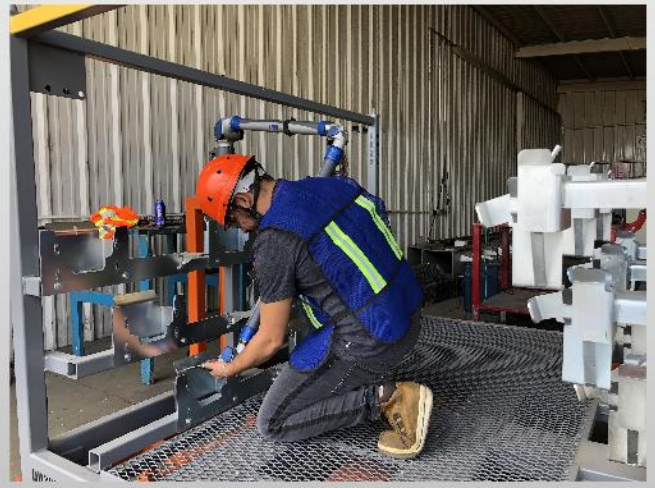
- We currently have 40 robotic weld machines within our multiple facilities.
- Our customers have seen major improvements in quality and consistency of weld in our containers.
- The most significant advantage in using the robotic weld machines is on high volume/ high complexity projects.

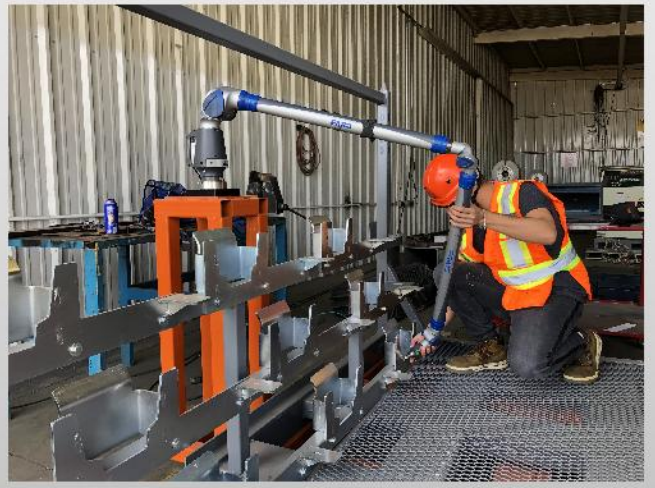


CMM Faro Arm Equipment

Robotically loaded / unloaded parts (ie. Body side, Roof) have very tight tolerances on critical dimension locations of sub assemblies, cantilever arms, base locator plates. We use our CMM Faro arm to perform quality checkpoints on the critical dimesnions for these type of containers. We have performed this service for several of our current customers per their request. This is advantageous on racks / containers that have a high degree of complexity to build .

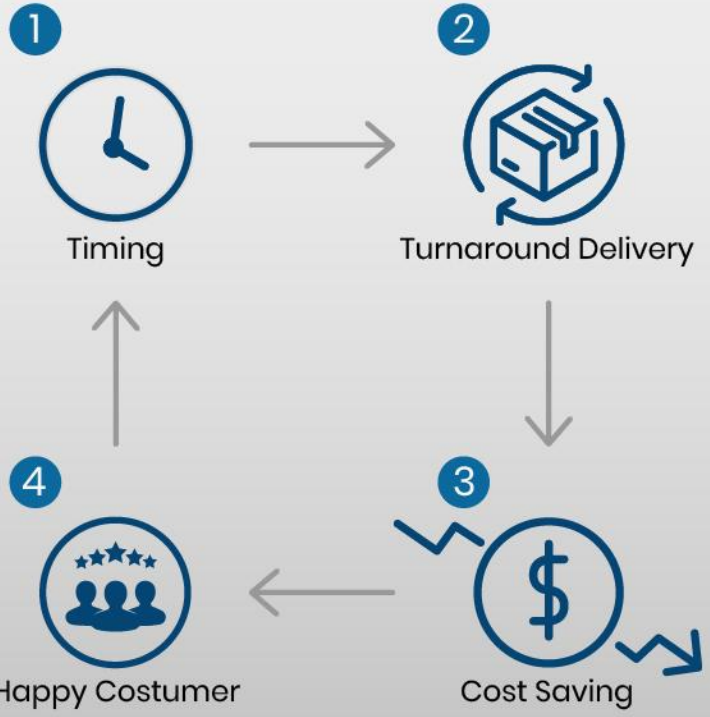
Building racks with our robotic weld machines coupled with testing the critical dimensions on racks with tight tolerances using our Faro arm provides a higher level of confidence with our customers when building high complexity packaging containers where the production at the plant utilizes robotic load/ unload process.

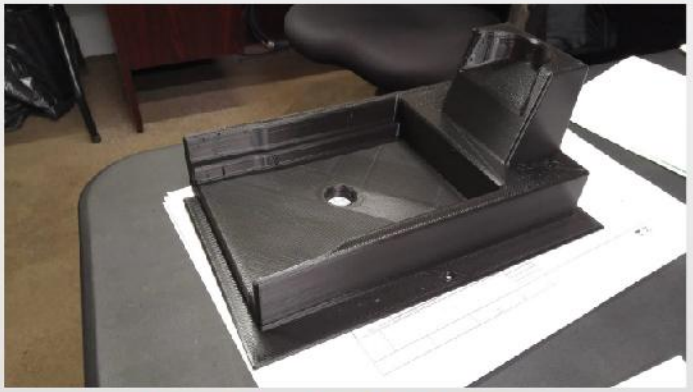




3D Printer – Parts and Dunnage

Many projects have a requirement to get packaging containers into service quickly. Using a 3D printer to create a piece of dunnage or a simulated production part during prototype build; allows our customer to review packaging containers and approve prototype racks to support critical short lead time projects.





Capabilities

	KingsVille Canada	Ruthven Canada	Chihuahua Mexico	Queretaro Mexico	Lawrenceburg Tennessee
Square Footage	30,000 Square Feet	25,000 Square Feet	87,000 Square Feet	53,000 Square Feet	57,000 Square Feet
# of Laborers	80 - Weld & Final assembly 12- Admin Staff	40 - Weld & Final assembly 7 - Admin Staff	120 Weld & Final Assembly 12 - Admin Staff	80 Weld & Final Assembly 6 - Admin Staff	60 Weld & Final Assembly 7 - Admin Staff
Total Labor Hours available per month	12,800 labor hours / per month Calc: 40 worker x 40 hrs x 4 weeks	6,400 labor hours / per month Calc: 40 workers x 40 hrs. x 4 weeks	19,200 labor hours / per month Calc: 120 workers x 40 hrs. x 4 weeks	12,800 labor hours / per month Calc: 80 workers x 40 hrs. x 4 weeks	9,600 labor hours / per month Calc: 80 workers x 40 hrs. x 4 weeks
Capacity per month	1600 Racks Calc: 80 workers x 20 days @ Avg TTB = 6.5 - 8.0 hrs. per rack 1 rack per worker/ day	800 Racks Calc: 40 workers x 20 days @ Avg TTB = 6.5 - 8.0 hrs. 1 rack per worker/ day	2,400 Racks Calc: 120 workers x 20 days @ Avg TTB = 6.5 - 8.0 hrs. 1 rack per worker/ day	1,600 Racks Calc: 80 workers x 20 days @ Avg TTB = 6.5 - 8.0 hrs. 1 rack per worker/ day	1200 Racks Calc: 60 workers x 20 days @ Avg TTB = 6.5 - 8.0 hrs. 1 rack per worker/ day
On Site Engineers	2 design engineers	2 design engineer	5 design engineers	2 design engineers	2 design engineers

Past Rack Build Experience

CUSTOMERS

> Recent projects

- BODY SIDE OUTER RH/LH.
- BOX INNER ASS RH/LH.
- BACK PANEL OUTER.
- APRON ASSEMBLY.
- DASH CROSSMEMBER.
- 6.7 L ENGINE.
- 4.4 L DIESEL ENGINE.
- CE31 FRONT DOOR.
- CE32 REAR DOOR.
- 6F/8F MAIN TO TEST.
- 6F/8F CASE.
- 6F/8F CONVERTER.
- TURBO CHARGER.
- CILINDER.

- SUN ROOF.
- DASH PANEL.
- FLOOR PANEL.
- ROCKER INNER.
- SPYDER.
- TRANSMISSION.
- GM SLP.
- 4 CYLINDER ENGINE.
- GM RAMOS.
- 6 CYLINDER ENGINE.
- GM SILAO.
- 8 CYLINDER ENGINE.
- PEG BOARD.
- ENGINE 4 CIL.

- LIFT GATE GLASS.
- THROUGH ASSY.
- LIFT GATE OPENING.
- MANIVERTER.
- FENDERS.
- COWL PLENUM.
- B PILLARS.
- REAR AXLE.
- FRONT BUMPER.
- BODY SIDE.
- HOOD.
- QUATER GLASS.
- WIND SHIELD.
- BLACK SHIELD.

- FRONT DOOR GLASS.
- REAR WINDOW GLASS.
- REAR WINDOW GLASS.
- HVAC.
- BODY SIDE.
- ROOF.
- DOOR FRONT GLASS.
- DOOR REAR GLASS.
- REAR AXLE.
- FRONT AXLE.
- COOLING AIR DUCTING.
- SUNROOF.
- REAR BUMPER.
- FRONT BUMPER.

- B PIPE.
- EXHAUST.
- DOOR FRONT.
- DOOR REAR.
- DASH LOWER.
- CROSSMEMBER.
- HOOD.
- ROOF LINER.
- REAR BUMPER.
- LOWER.
- PIPE EXHOUST.
- SILENCER.
- SPOILER.
- CARPET.

Past Rack Build Experience

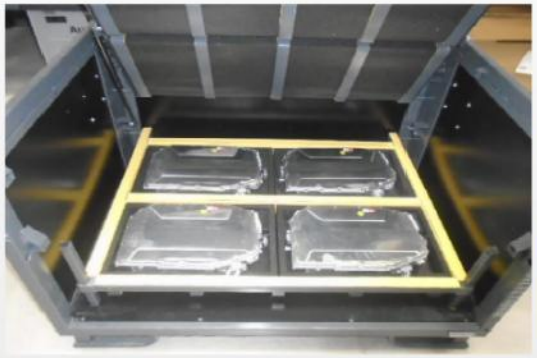
CUSTOMERS

> Recent projects

• ESTRIBO.	• ROOF.	• CABLE TRIFÁSICO.	• CARPET.	• SHOOTER.
• REFUERZO DE COSTADO.	• BODY SIDE.	• MODULO HÍBRIDO.	• PIPE EXHAUST.	• CANASTILLA RB.
• CAJA DE RUEDA.	• REFUERZO DE COSTADO.	• WINDSHIELD.	• CHASIS LARGO.	• BODY SIDE.
• BODY SIDE.	• CAJA DE RUEDA.	• BACK SHIELD.	• CHASIS CORTO.	• ROOF.
• FASCIA DELANTERA ROH.	• PISO TRASERO.	• PUERTA DELANTERA.	• ROOF C CAB.	• HOOD.
• FASCIA TRASERA ROH.	• BUMPER TRASERO.	• PUERTA TRASERA.	• ROOF D CAB.	• PUERTA DELANTERA.
• FASCIA DELANTERA.	• BUMPER DELANTERO.	• HOOD INNER.	• PIN PALLETS.	• PUERTA TRASERA.
• PINTADA BETTLE.	• PISO DELANTERO.	• TAPA TRASERA.	• ENGINE.	• PISO DELANTERO.
• FASCIA TRASERA PINTADA.		• DUCTOS DE GASOLINA.	• ALUMMINUM.	• REFUERZO.
• BEETLE.		• PEDALES.		• COSTADO.
• SPOILER TRASERO.		• DUCTOS DE FRENOS.		
• PISO DELANTERO.		• BASE GIRATORIA.		
		• CANASTILLA GRANDE.		
		• EJE KARDAN.		

Rack Build Experience

Transfer Case Rack



Hybrid Electronic Module Rack

Spoiler Rack

Body Side Rack

Door Rack

Cowl Top Rack

Engine Support Rack

Power Pack Rack

Reinforce Roof Rack

Rack Build Experience

Windshield Rack

Front Door LH/RH

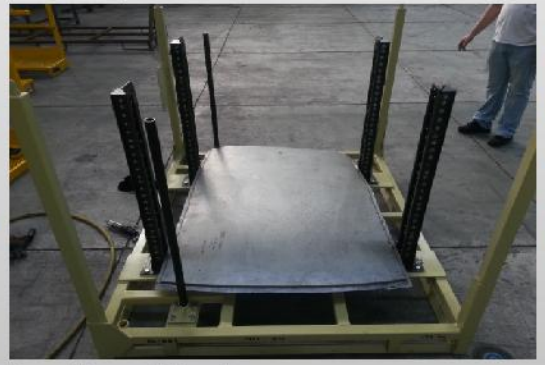
Rear Door Auto Taken Robot Rack

Trifasic Hybrid Cable Rack

Break Pipes Rack

Pedal Rack

Pilar B Rack



Roof Panel Rack

Rear Axle Rack

Engineering Capabilities

IZA Design and Manufacturing opened a location in the Metro Detroit area for our Engineering Tech Center. Our multiple facilities allow custom fabrication and production line high volume manufacturing. We understand the nature of the manufacturing industry and we are here to provide solutions to overcome obstacles for our customers.

That is why we're going to expand our current portfolio to include Engineering Services: Program Management, Packaging and Material Handling Engineering, Design Engineering, and Industrial Engineering.

SOLIDWORKS CATIA Unigraphics

Program Management

PROGRAM MANAGEMENT

IZA D&M has over 60 years of intense, highly passionate and well seasoned Program Management experience. It is with laser sharp focus and superior communication skills that they can manage a variety of multi-disciplined projects. These PM's are an extension of the OEM and develop a strategic bond that aligns with a total program solution for success. This success is achieved by managing:

- Team Developed Communication Strategy.
- Program Objectives.
- Process Management.
- Resource Management.
- Schedule Management.
- Financial Management.
- Change Management.
- Risk Management.

Container Engineering

(Returnable/Expendable)

CONTAINER DEVELOPMENT RESOURCE CONSIDERATIONS

- Safety.
- Ergonomics.
- Quality.
- Logistics.
- Product Engineering.
- Industrial Engineering.

CONTAINER DEVELOPMENT PROCESS

Phase I - Pre-Concept

Phase II - Concept

Phase III - Design

Phase IV - Prototype

Phase V - Testing

Phase VI - Procurement

Phase VII - Support

PROGRAM MANAGEMENT

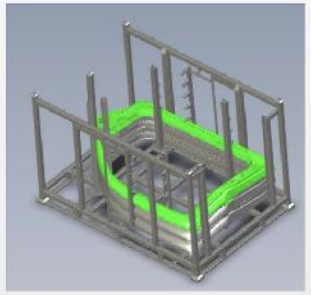
- Communication.
- Program Objectives.
- Process Management.
- Resource Management.
- Schedule Management.
- Financial Management.
- Change Management.
- Risk Management.

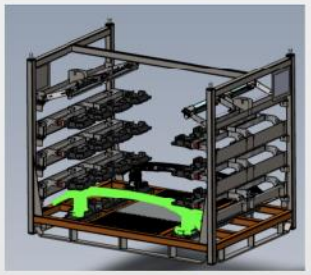
COST EFFECTIVE RETURNABLE / EXPENDABLE CONTAINER SOLUTION

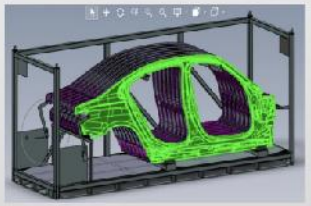
Packaging and Material Handling Engineering

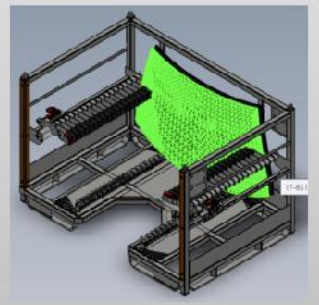
IZA D&M'score backbone of manufacturing, coupled with our Top Tier Project Managers allows us to be your one stop shop. Our PM's will handle every facet of your Packaging programs from complete design of your racks / containers / dunnage, prototype build and all the way through production launch. A snapshot of our services include:

- Team Developed Communication Strategy.
- Implement World Class Manufacturing Principles.
- Commodity Specific Program Management.
- Container Right Sizing.
- Budget Management and Reconciliation.
- EBOM Analysis.
- Unit Load Data Sheets with work instructions.
- Logistics Studies.
- Program to Program Lessons Learned Documentation.
- Sourcing Justifications and Field Order Change Control.
- Document meeting discussions, decisions, and outstanding issues.









Design Engineering

IZA D&M has incorporated design as a core practice from day one. Our diverse background from other industries makes way for our designers to draw experience from complex ranch trailerst to simple weld stands.
Our North American locations in Canada, México and US permit us to allocate resources in three different countries and times zones offering a unique perspective to alternative materials and design techniques. We offer the following services in Design Engineering:

- Team Developed Communication Strategy.
- Secure File Transfer.
- Multiple CAD Media Types:
  - Solid Works.
  - CATIA V5.
  - NX Unigraphics.
- FEA Analysis.
- 3D Printing and R&D.
- Gauge and Fixture Design.
- FARO Testing.
- Direct to Laser or Plasma Files.
- Online Design Reviews.
- Mobile Workstations.
- Reverse Engineering.
- Standards Creation and Library Storage.

Typical Program Hierarchy

Next Steps

Sales / Program Management

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