

COMPANY OVERVIEW

2024





GEMINI
GROUP

PLASTIC PRODUCTS

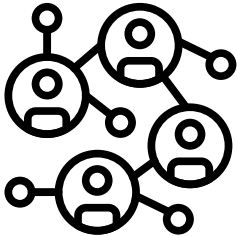
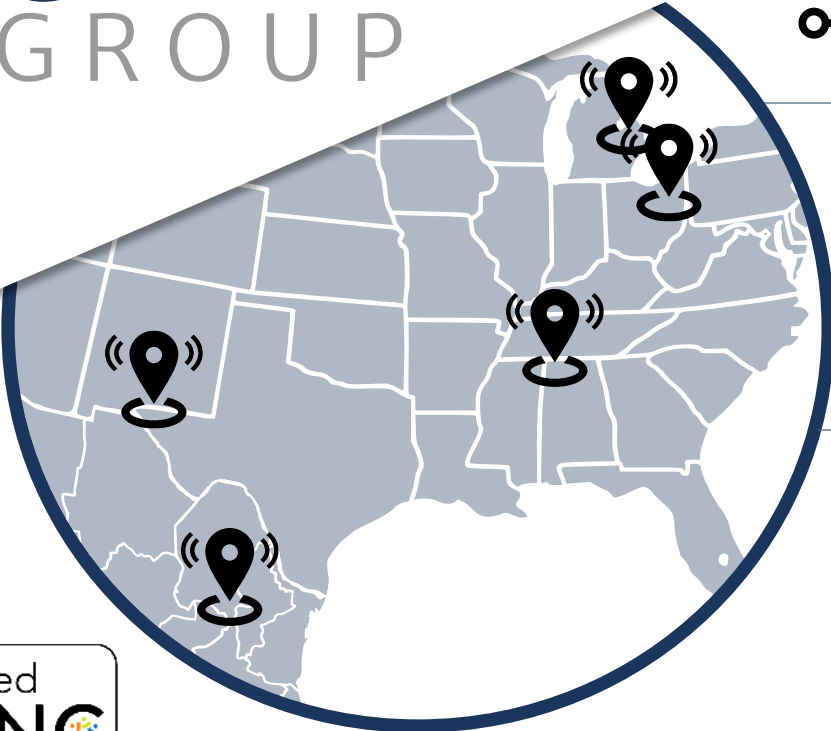
Interior Trim
Profile Extrusion
Technical Blow Molding
Two-Shot Injection Molding

TOOLING SOLUTIONS

Aluminum Extrusion Tooling
Forge Tooling
Aluminum Die Cast Tooling
Briney Toolholders

OUR COMPANY

Horizontally Integrated | Strategically Located



1,700
Employees



\$300 Million
Annual Sales



18
Locations



MANUFACTURING FOOTPRINT: 1.3M SQUARE FEET

18 Locations, 16 Manufacturing Facilities Across North America



Gemini Plastics, Inc.
Ubly, Michigan
195,300 SF



Regency Plastics
Ubly, Michigan
72,200 SF



Gemini Group Interior Trim
Muscle Shoals, Alabama
20,000 SF



GT Plastics
Oscoda, Michigan
37,500 SF



Thumb Tool & Engineering
Bad Axe, Michigan
104,000 SF



Mid-South Central Extrusion Die
Muscle Shoals, Alabama
45,000 SF



Sierra Plastics
El Paso, Texas
281,000 SF



Tri-R Dies
Youngstown, OH
22,000 SF



Consolidated Tool - North
Muscle Shoals, Alabama
18,000 SF



Gemini Plastics de Mexico
Saltillo, Mexico
105,000 SF



Valley Enterprises
Ubly, Michigan
153,000 SF



Consolidated Tool - South
Muscle Shoals, Alabama
40,000 SF



Thumb Plastics, Inc.
Bad Axe, Michigan
76,900 SF



GPMI South
Bad Axe, Michigan
52,500 SF



GPMI North / Briney
Bad Axe, Michigan
61,500 SF



GEMINI GROUP – CUSTOMER PROFILE

Large Enough to Deliver, Small Enough to Care

72%

Automotive



28%

Lawn & Garden, Industrial, & Tooling Systems

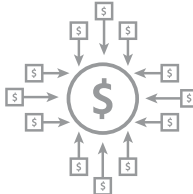


By the Numbers



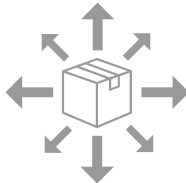
9 → 10 → 2

9 out of 10 of our largest customers purchase product from 2 or more of our processes.



0 > 9%

No single Gemini Group customer accounts for greater than 9% of annual revenue.



10,000+

Gemini Group ships to over 10,000 customer locations.

TWO-SHOT INJECTION MOLDING

- Robotic Transfer Two-Shot
- Insert & Overmolding
- 40+ Presses = > 85T to 1,630T

Interior: Speaker grills, grab handles, pull cups, close-outs

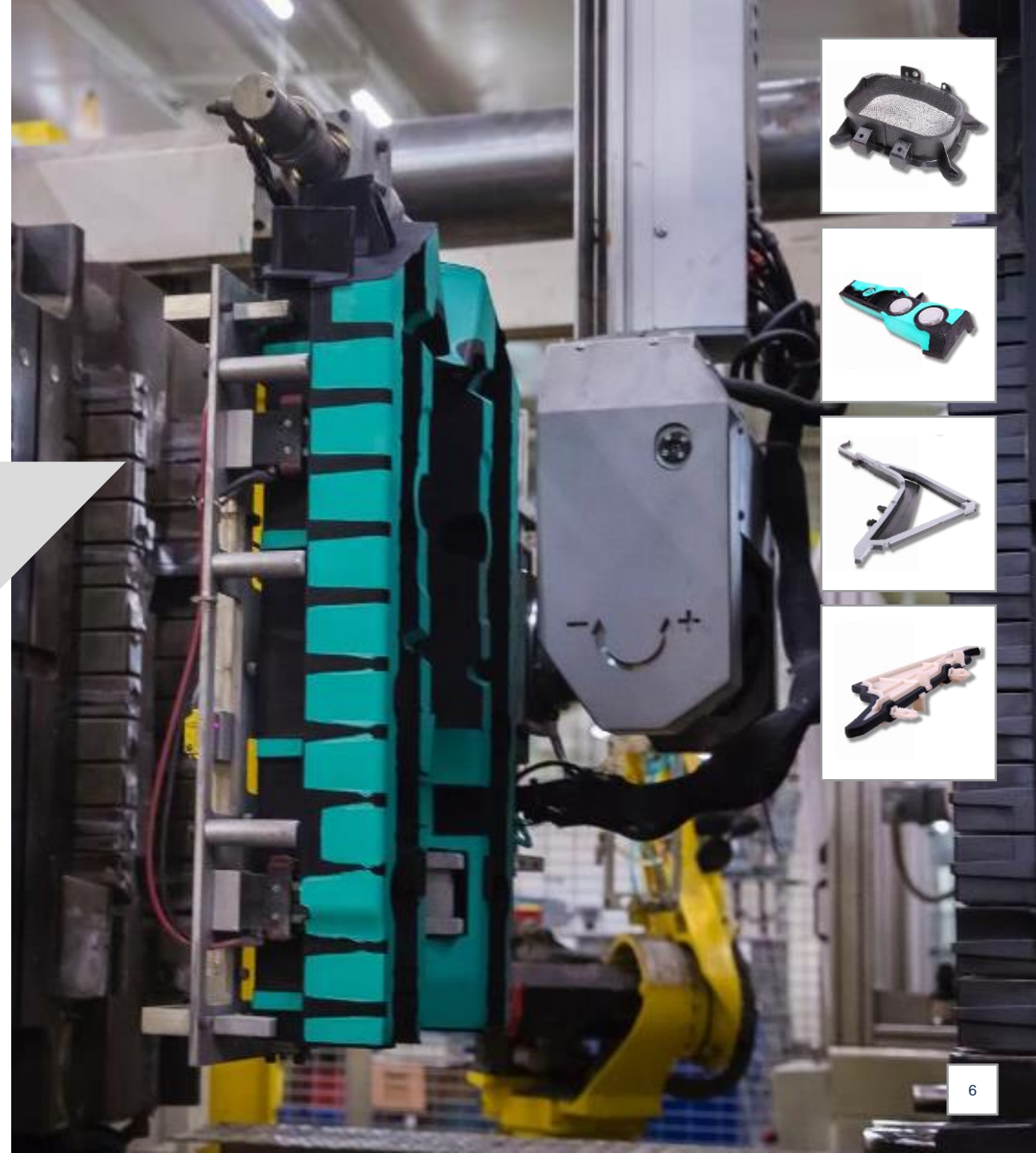
Exterior: AGS Air Guide Seals, spoiler strakes, close-outs

Underhood: Air intake, bellows, cuffs

Structural Reinforcements: Pillars, side impact, BIW

Sealing Baffles: Fuel vapor, noise dampening, acoustic sealants

Safety: Air bag covers, ramps, sensor bezels



PROCESSES & EQUIPMENT

Injection Molding Equipment

Standard Two-Shot

(13) Two-shot Molding

- 230 – 1630 Ton Capacity

Press to Press Transfer

(12) Robotic Transfer

- 85 – 730 Ton Capacity

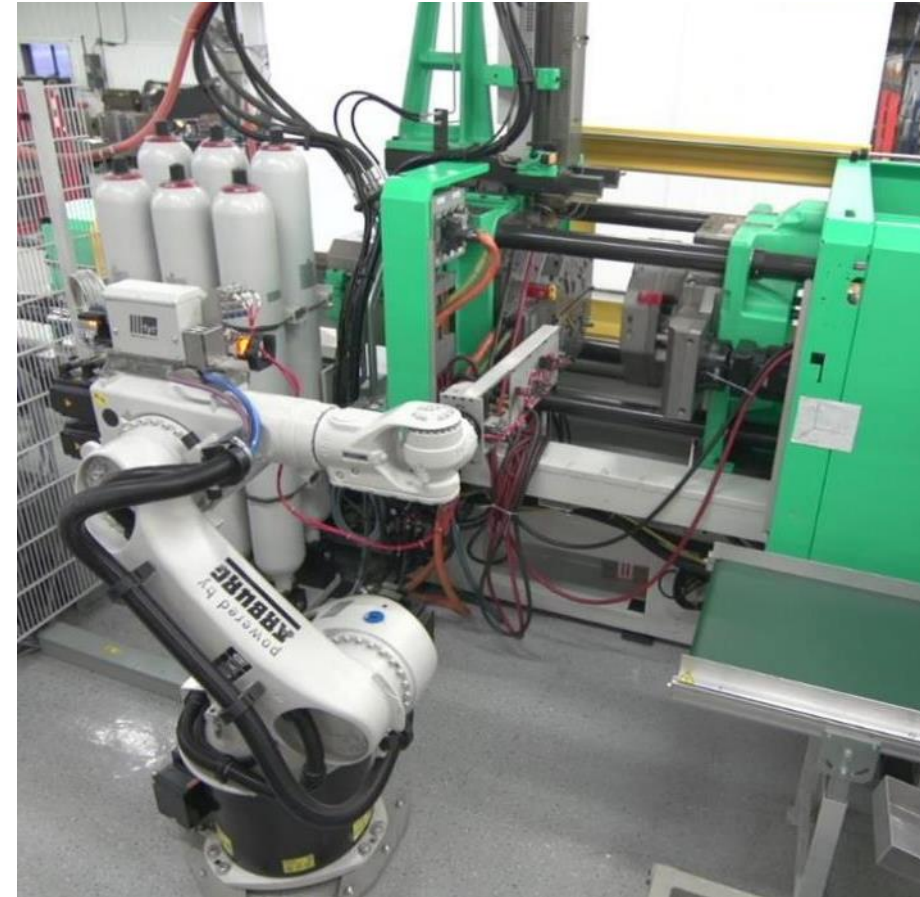
(6) Manual Transfer

- 85 – 300 Ton Capacity

Single Shot Injection Molding

(3) Injection Molding

- 170-720 Ton Capacity



KraussMaffei

TOSHIBA

ARBURG

ENGEL

TWO-SHOT: PRODUCTS

Automotive

- **Underhood**
 - Air intake
 - Bellows
 - Cuffs
 - Resonators
- **Structural**
 - Pillars
 - Side impact
 - Rocker reinforcement
- **Sealing**
 - Fuel vapor
 - Noise-dampening
 - Acoustic
- **Safety**
 - Air bag covers
 - Ramps
 - Sensor bezels
- **Interior**
 - Speaker grills
 - Grab handles
 - Pull caps
 - Close-outs

Lawn & Garden

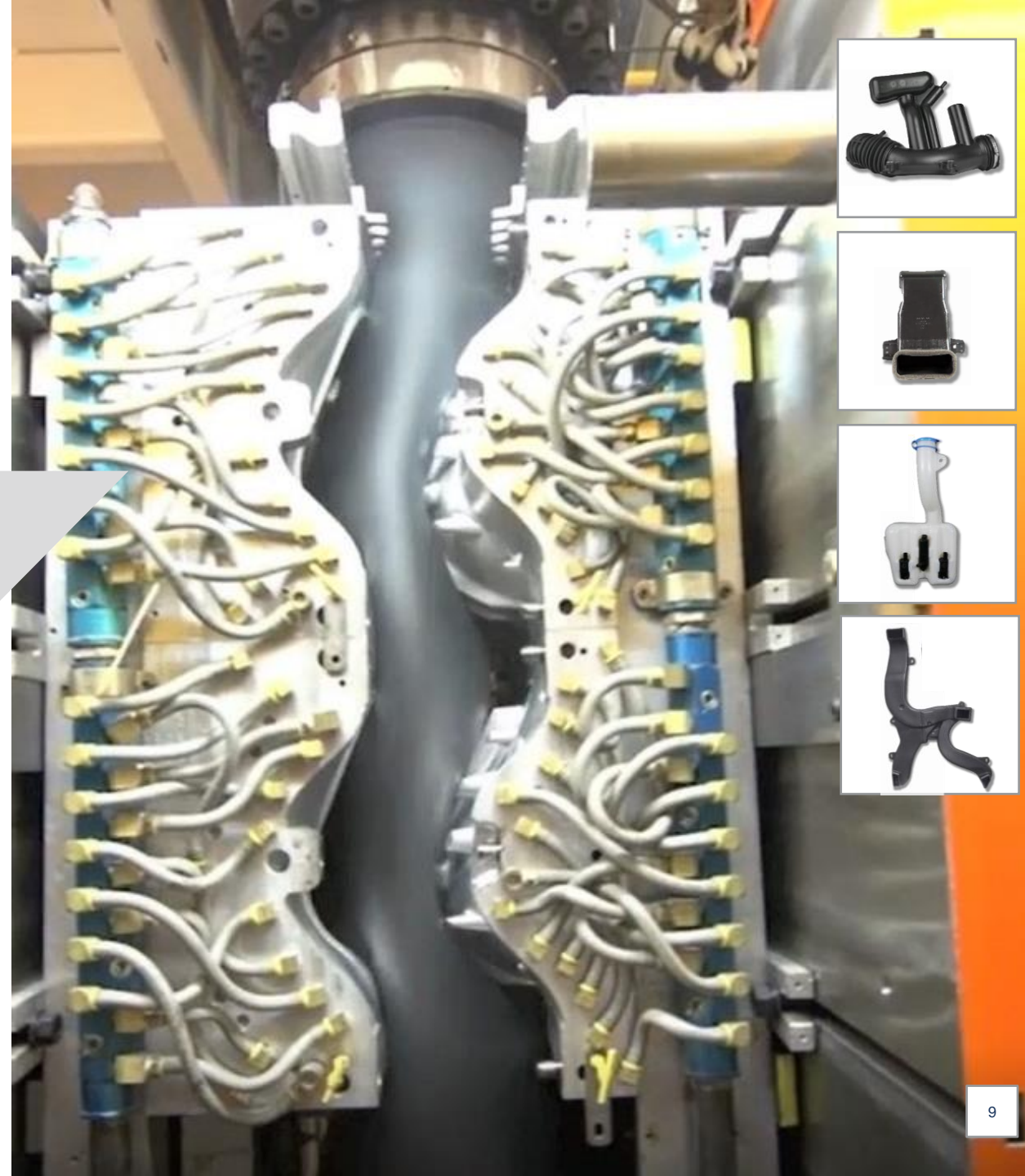
- Motor Housings
- Exterior Equipment Panels
- Fuel Tank Fill Necks



TECHNICAL BLOW MOLDING

- Design & Engineering
- In-House Tooling
- In-Process Testing
- Simulation Software
- Welding & Assembly

Air Intake Assemblies
DEF Tanks
Fluid Reservoirs
HVAC Ducts
Seat Belt Boots & Sleeves



TECHNICAL BLOW MOLDING: PROCESSES

Blow Molding

- 20+ Machines
- ½ lb. to 35 lb. Doubles
- Insert Molding
- Compression Molding (Controls ID and OD)
- B-SIM Software Simulation

Secondary Operations

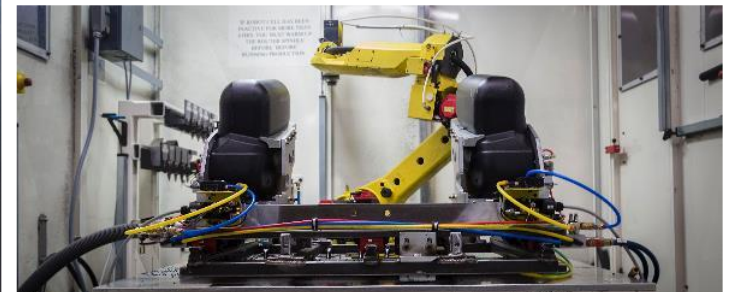
- Welding Processes
- IR, Spin, Ultrasonic, Vibration, Hot Plate
- Riveting & Staking
- Foam & Acoustic Pad Assy
- Chipless Cutting

Testing Laboratory

- Material Properties
- Tensile, Push/Pull, Load
- Spectrometer
- Material Thickness analysis

Materials

- PE - HDPE, MDPE, LDPE
- PP - Glass, talc-filled
- Nylon, EVA, PVC, TPV's



TECHNICAL BLOW MOLDING: SIMULATION SOFTWARE

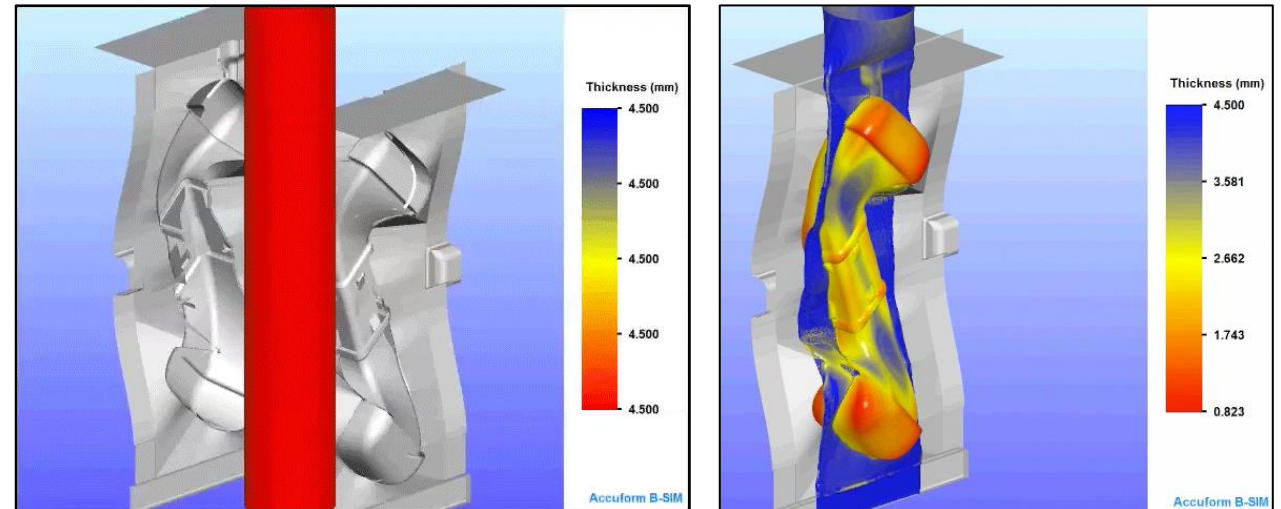
A Science, Not an Art

Product Design Trends

- Parts are getting more complex (reduce risk)
- Cost reduction is more important than ever
- Development lead-times are shorter

Close Loop System

- Design simulation mold
- Run simulation
- Evaluate data
- Provide design feedback
- Make design changes
- Rinse and repeat



TECHNICAL BLOW MOLDING: PRODUCTS



- **Fluid Reservoirs**

- DEF/Urea Tanks
- Coolant/Radiator
- Washer
- Oil & Brake

- **Air Intake Assemblies**

- Ducts
- Resonators
- Tuners

- **Lawn & Garden**

- **HVAC Ducts**

- **Seatbelts Boots**

INTERIOR TRIM

- Baypreg & Azdel
- Compression Molding
- Thermoforming
- Assembly

Cargo Management Systems (CMS)

Load Floors

Rear Window Trim / Package

Trays Quarter Trim Panels

Trunk Systems, Molded Carpet

Spare Tire Covers

Seatbacks



BINS

Materials:

- Injection molded plastic
- Injection molded plastic with carpet trim
- Compression molded non-woven with carpet

Processes:

- Injection molding up to 3,000 T
- Compression molding



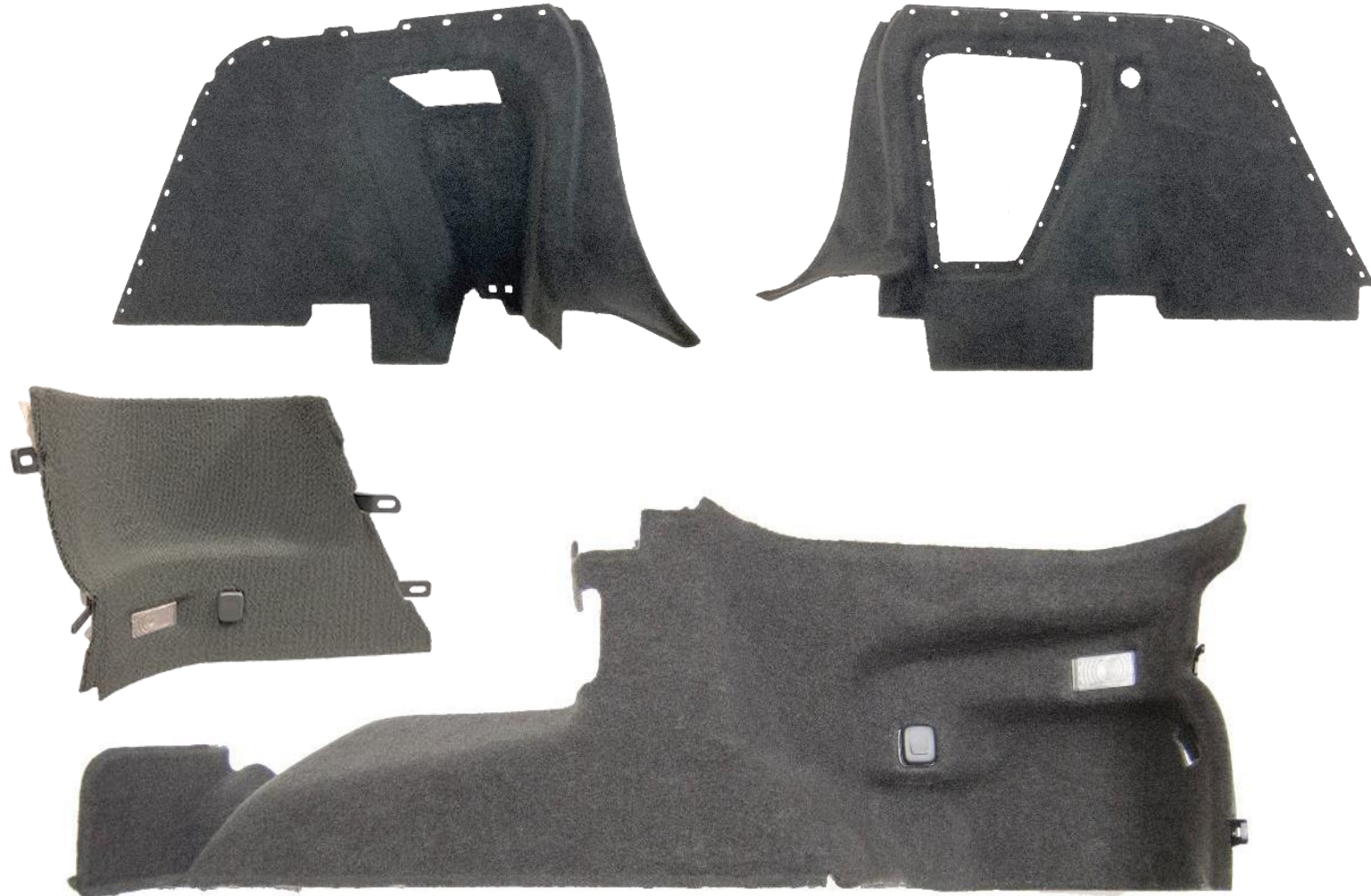
TRIM

Materials:

- Compression molded Azdel
- Compression molded Greenwood
- Twin sheet Greenwood

Processes:

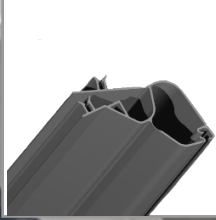
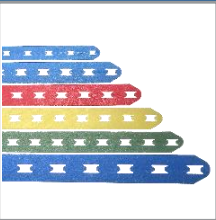
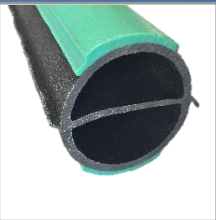
- Compression molding with carpet, lighting, and other features



PROFILE EXTRUSION

- **Single & Co-Extrusion**
 - Hollow profiles, living hinges, dual- & multi- durometer
- **In-Line Processing & Fabrication**
 - Tape, foam, silicon, graining, printing
- **In-House Tooling Design & Build**
 - Extrusion dies, trim & fabrication tools, fixtures, gauges
- **Secondary Operations**
 - Bending, welding, lamination, assembly, CNC routing
- **Materials**
 - PP, TPR, TPV, TPO, TPE, HDPE, MDPE, LDPE, PVC, ABS, PS, Nylon, Acrylic, Color-Matched, 50+ Specialty Resins

FACT: *Two out of every three drivers in North America recline on our products – custom plastic extrusions for automotive seating.*



PROFILE EXTRUSION: GPI, SIERRA, GPM & GT PLASTICS

Large enough to deliver, small enough to care.

	Gemini Plastics, Inc. (GPI)	Sierra Plastics	Gemini Plastics de Mexico (GPM)	GT Plastics
Year Established	1972	1996	2011	1990
Location	Ubyly, Michigan	El Paso, Texas	Saltillo, Mexico	Oscoda, MI
No. of Employees	246	110	104	24
Extrusion Lines	28	24	14	7
Plant Size	195,300 SF	281,000 SF	95,000 SF	37,500

All molds and tools are built within the Gemini Group family

All plants are IATF-16949, ISO-9001, and Women Owned Business Enterprise (WBENC) certified



PROFILE EXTRUSION: ENGINEERING CAPABILITIES

▪ Gemini Group Personnel

- Development engineers
 - 3 prototype engineers
- Product engineers
 - 4 product engineers OEM and application specialist
- Design personnel
 - 3 designers

▪ Rapid Prototyping

- 3D Printing
- Pre-Production Process Area
- Prototyping allocation
 - 1 multi-durometer extrusion line
 - 3 single durometer extrusion lines
- CAD software
 - AutoCAD Inventor

▪ Technical Strengths

- Range of Materials
- Rapid Prototyping
- In-house Tooling
- Complementary Processes

▪ Measuring Systems

- Vision systems
- Inline laser systems

▪ Component Level Validation

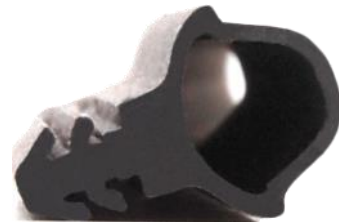
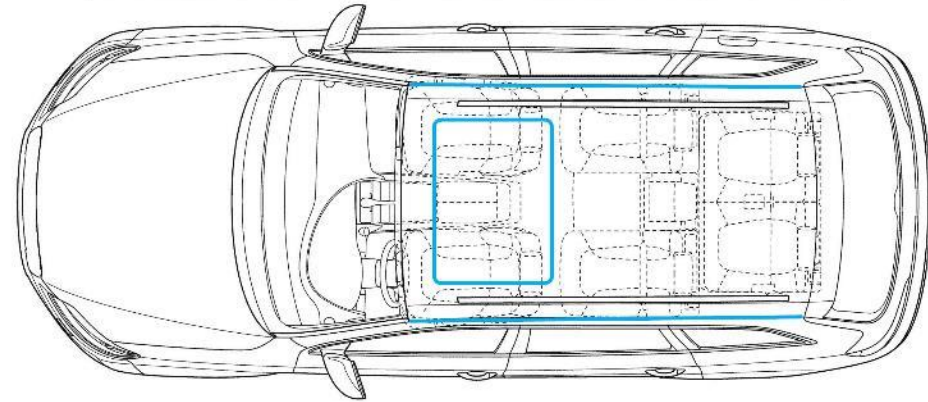
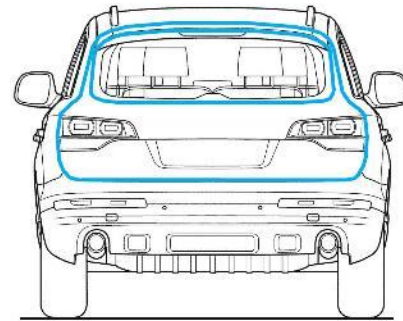
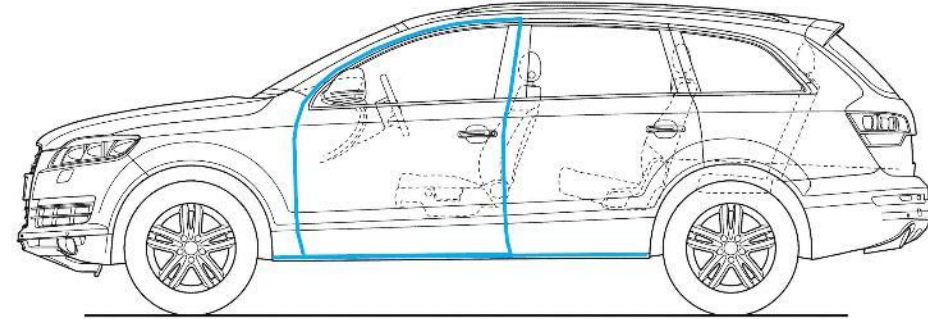
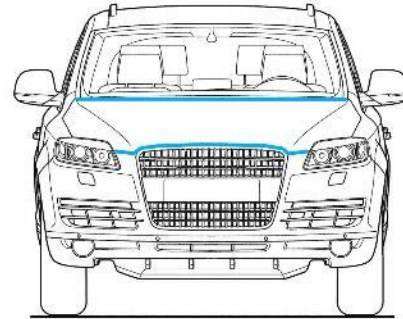
- Compression Load Deflection
- Insertion/Extraction
- Compression Set
- Density/Specific Gravity
- Adhesion/Bond Strength
- Fastener Insertion/Extraction
- Appearance & Color Analysis



PROFILE EXTRUSION: SEALS

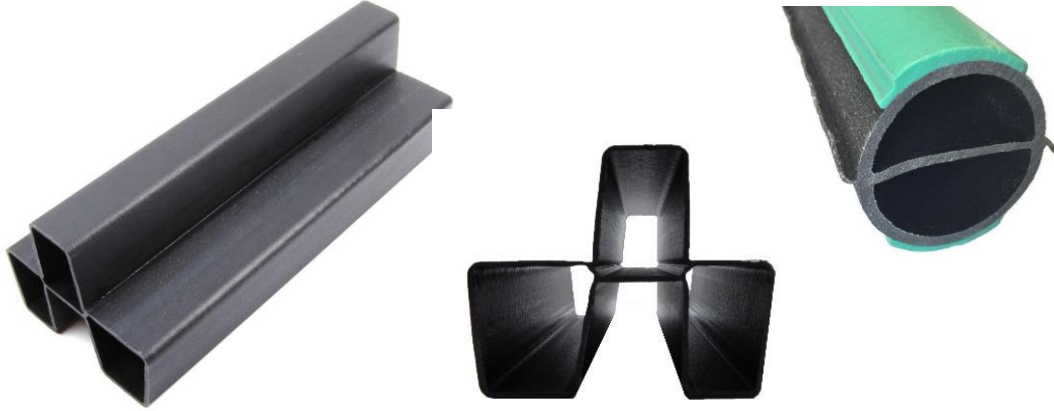
▪ Seals

- Air Guides/Deflectors
- Instrument Panel Seals
- Sunroof Seals
- Pillar Seals
- Condenser/HVAC Seals
- Radiator Seals
- Hood Seals
- Cowl Seals
- Rocker Seals
- Roof Line Seals
- Belt Line Seals
- Window Slider Channels



- **Single & Multi Durometer**
- **Single & Co-Extrusion**
- **Complex or Hollow Profiles**
- **Foam, Metal, Flock, or Tape**

PROFILE EXTRUSION: STRUCTURAL & MISCELLANEOUS



▪ Structural

- Extruded structural reinforcements replacing aluminum or steel
- Up to 60% glass-filled nylon and PP
- Proprietary heat-expandable materials
- Complex and hollow profiles
- Single and co-extrusion
- Machining, fabrication and assembly



▪ Miscellaneous

- Tubes, Tie Downs
- U-channels, Custom Profiles
- Feed/Collation Tape



THANK YOU

If you have any further questions,
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