

# shape

ON THE ROLL

ISSUE 84 | SUMMER 2017

MORE THAN 40 YEARS OF INNOVATIVE ENGINEERING SOLUTIONS AND FLAWLESS MANUFACTURING

driving new

# GROWTH

with an expanded footprint, new products and new technology

**SHAPE ON THE ROLL**  
Summer 2017 | Issue 84

Welcome to Shape on the Roll. Your source for the latest Shape news and developments from across the globe. Throughout these pages you'll discover the best of Shape, including innovations, collaborations, insights, services and growth. Shape is proud to offer an opportunity to share the company's story with each reader.

**ABOUT SHAPE CORP.**

Shape Corp. provides innovative engineering solutions with the discipline of flawless execution. The company is a full service, tier 1 supplier that designs, engineers, tests and manufactures metal, plastic and composite products. Process and material advancements position Shape as a pioneer in custom roll forming and injection molding. Founded in 1974, Shape remains a privately owned, family company. Shape employs more than 3,500 team members in the North America, Europe and Asia.



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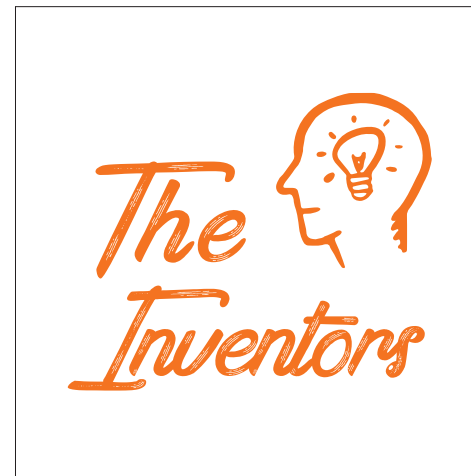
The Shape Family is looking to grow by reaching out to and supporting US military veterans.

**18 GUANGZHOU GRAND OPENING**

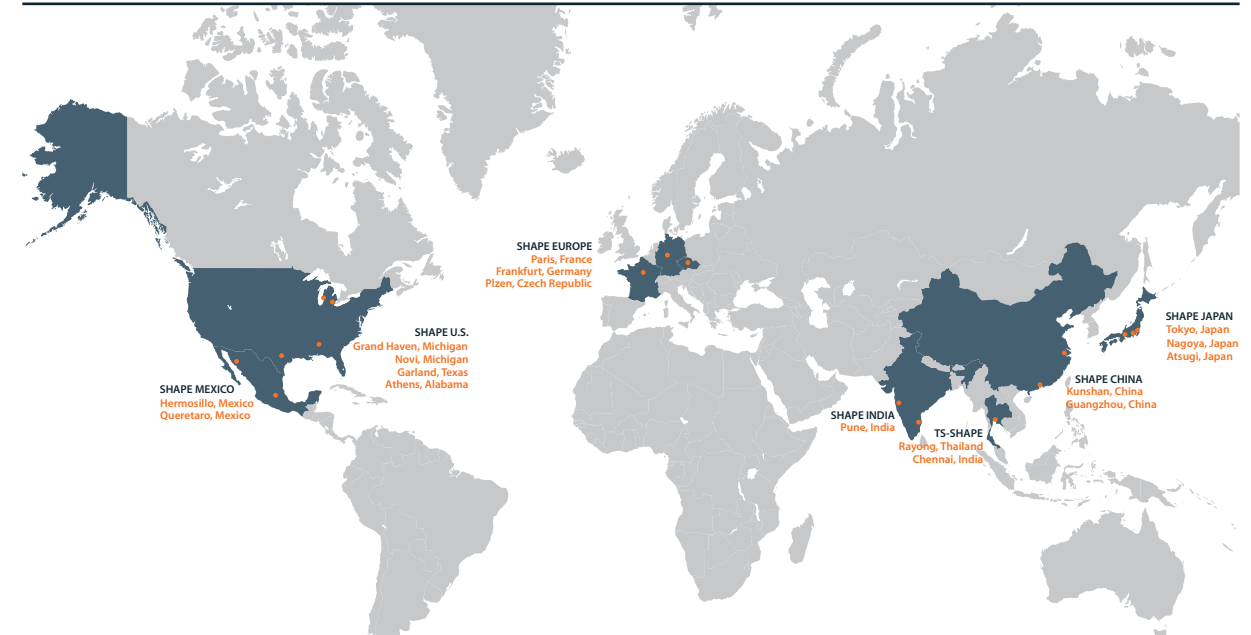
The opening of Shape's second Chinese manufacturing facility was met with excitement.

**22 MEET PAT SULLIVAN**

Shape's vice president of Asia shares his thoughts on the region's recent growth and its role at Shape.



**THE SUN NEVER SETS ON SHAPE**



**SHAPE AT A GLANCE**

<b>3,500+</b> team members worldwide	<b>1<sup>ST</sup></b> to receive a roll of 1700MPa	<b>12</b> manufacturing processes for ▪ steel ▪ plastic ▪ aluminum ▪ composites	<b>14</b> global manufacturing facilities
<b>12</b> testing and validation capabilities	<b>102</b> active patents	<b>100+</b> customer awards	<b>2 million</b> square feet of manufacturing space

**FIND SHAPE ONLINE**

[www.youtube.com/watchshapecorp](http://www.youtube.com/watchshapecorp)

[www.shapecorp.com](http://www.shapecorp.com)

[www.facebook.com/shapecorp](http://www.facebook.com/shapecorp)



# PREPARING FOR OUR FUTURE

*The* automotive world is undergoing a fundamental and transformative shift. Our industry is breaking ground in revolutionary areas like electric mobility, autonomous driving, connectivity and ride sharing. Couple these trends with improved safety performance, lower emission standards and the demand for improved lightweighting of vehicle structures and you'll see we're living in exciting and dynamic times. Each of these factors creates an opening for new opportunities at Shape to expand our global capabilities, products and processes.

Our global collection of forward-thinking team members are determined to continue evolving Shape in order to meet the emerging needs of our customers. Shape's innovative heritage is rooted in our roll forming expertise, and that will remain a pillar of our business as we make advancements in materials, processes and products. But beyond that, we're experiencing a record year of re-investment, focused on new technology development and implementation. In addition, we're continuing to strengthen our lean manufacturing principles to drive efficiency improvements throughout our business.

With our customers in mind, Shape is investing in exciting new plastic and composite technologies such as curved carbon fiber pultruded profiles and organo-sheet composites for lightweighting. We have a team of people dedicated to aluminum processing and advanced aluminum alloy development. Each of these innovations are part of our customer-centric strategy that aims to diversify our toolbox and respond directly to the voice of our customers.

I'm proud to say many of our strategies

are already paying dividends as we expand our customer base with recent projects launched into serial production with Brose, Tesla and BMW. Looking forward, Shape will continue to make strategic, long-term investments that enhance our global footprint and manufacturing capabilities. The biggest additions we've made in the last year include the opening of new manufacturing facilities in Guangzhou, China; Athens, Alabama; Hermosillo, Mexico and expanding our Thailand-based joint venture, TS-Shape, to Chennai, India.

None of this is possible without a dedicated and caring Shape Family around the globe. Our company culture is centered on teamwork, an innovative 'can-do' spirit, and a commitment to giving back to our communities.

As we drive forward, we're leveraging the talents of our diverse global team members in new and creative ways. Our people, which form the Shape Family, are our greatest strength as a company. I am thankful to our 3,500 team members world-wide for making a positive impact on our company.

Each of these exciting investments are about positioning Shape for long-term success and continuing to reach our greatest potential as a world-class employer, a valued supplier partner and community advocate.

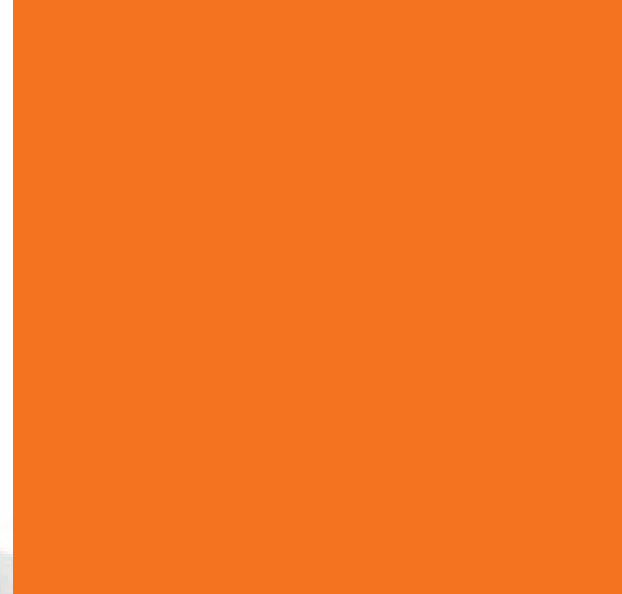
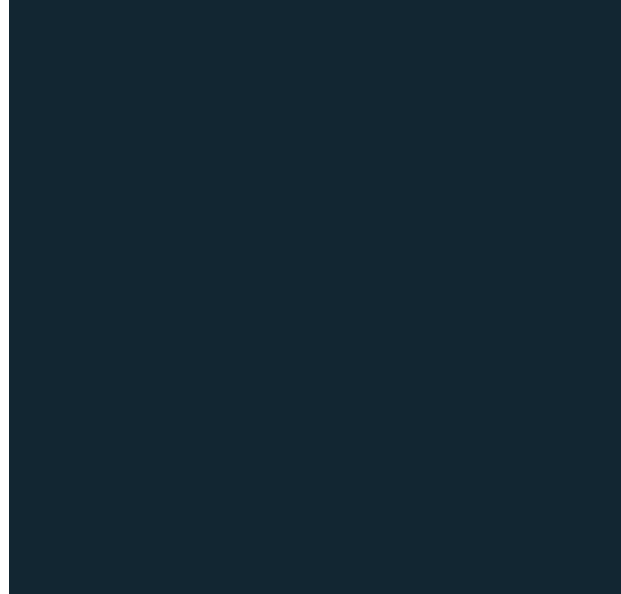
Shape is on the move. Thank you for your continued confidence and support.

Sincerely,

Mark White, Shape president



# The Inventors



Eight Shape inventors were recently awarded for their valuable innovation and forward-thinking. Awards for each individual were presented in front of leadership throughout this past March and April.

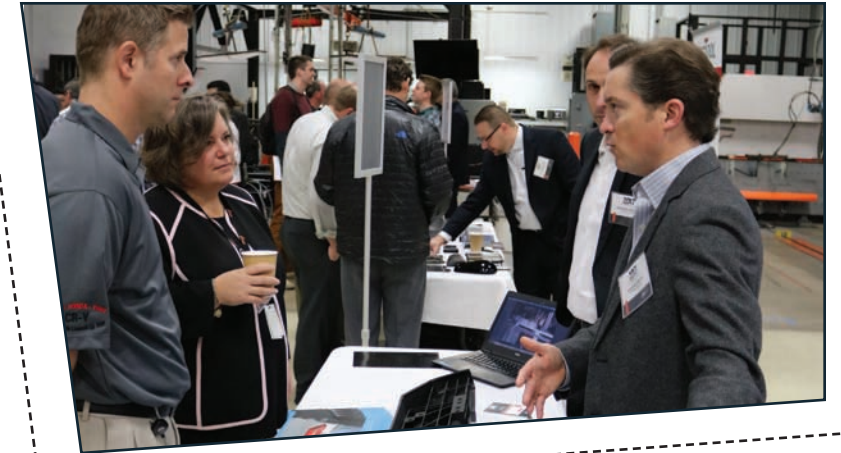
Jeff Piper, Shape executive vice president of strategy and innovation, described the importance of innovation and why these team members deserved recognition, "these contributions to innovation are a critical part of our future and we want to formally recognize significant milestones in innovation," said Piper.



Piper further explained that everyone at Shape is eligible and those selected have been part of awarded patents or contributed to a significant innovation at Shape.

**Team members that were recognized include (top, left to right):**  
 Cort Corwin, product development engineer  
 Toby Jacobson, product manager  
 Brian Malkowski, product development leader  
 Dan Gatti, technical manager  
 Devesh Kumar Soni, CAE engineer  
 Joe Matecki, product manager  
 Brian Oxley, product manager  
 Tom Johnson, director of engineering





# 2017

## SUPPLIER INNOVATION DAY

Inspiring Innovation Through Partnerships

“Learning our suppliers’ technologies can inspire us toward new ways to use materials, products and processes,” said Jeff Piper, Shape executive vice president of strategy and innovation, as he kicked off Shape’s inaugural Supplier Innovation Day.

The May 2 event, brought seven suppliers to Shape’s Grand Haven Technical Center to showcase innovative solutions in the composites and plastics segments. The open house style event saw suppliers travel from as far as Germany and as close as the neighboring city of Spring Lake, Michigan.

Exhibitors included LANXESS, Henkel, Vectorply, Thomas Technik, RocTool, Krauss Maffei, and Composites One.

To fully leverage the innovative concepts on display, Shape held an internal competition, open to all employees, to generate ideas on how the company could best use any of the supplier technologies. Awards were given to the best individual idea, as well as the best team idea. Because of the overwhelming success, Shape is excited to make Supplier Innovation Day a regular event with a rotating focus.

**LANXESS**  
Energizing Chemistry

**Henkel**

**VECTORPLY**  
PERFORMANCE COMPOSITE REINFORCEMENTS

**thomas**  
Technik + Innovation

**ROCTOOL**

**Krauss Maffei**

**COMPOSITES ONE**

# SUPPLIER EXCELLENCE AWARDS

Company success doesn't come from the efforts of one individual, it evolves from the collaborative efforts of many. Shape is fortunate to have hundreds of team members who come together to provide the best value and products for their customers.

The Shape Supplier Excellence awards are presented each year to suppliers who provide the best overall value and demonstrate outstanding performance in the areas of quality, cost, delivery, service, and innovation.

This year, 15 suppliers out of 350 globally, were selected to receive a 2017 Shape Supplier Excellence award.

"We believe that our supplier partners are a critical component of Shape's success and together we are a family of thinkers, believers, and doers," said Aimee Cohoon, Shape director of purchasing.

This year's Supplier Excellence Award winners included: **Ruizheng Metal Products, Jaixing Hongzhong Steel Processing, Kenwal Steel Company, Decker Manufacturing Corp., Seaver Industrial Finishing, Shoreline Container, RTP Company, KAM Plastics Corp., Expeditors International, Holland Special Delivery, Metrican Estampados, NASG Mexico, Keytec, Ceske Budejovice, and Atega.**



ADVANCED PRODUCT DEVELOPMENT

## Shape Battery Module Protection Systems

Shape is leveraging their automotive impact energy management expertise to develop electric vehicle battery module protection systems for automotive OEMs and battery manufacturers.

Engineered as a customizable solution, Shape's battery tray development is capable of using various materials, processes, and lightweight structural designs to ensure battery trays meet customer needs and automotive industry regulations.

Both full system and component level engineering and manufacturing are available with Shape.

VISIT SHAPE THIS SEPTEMBER  
AT THE BATTERY SHOW



SUBURBAN COLLECTION  
SHOWPLACE  
NOVI, MICHIGAN  
SEPTEMBER 12-14

To learn more about Shape's battery tray development please contact Mark Stephens - [stephensm@shapecorp.com](mailto:stephensm@shapecorp.com)



**TUB DESIGN**  
Water sealing focused  
Integrated mounting hardware



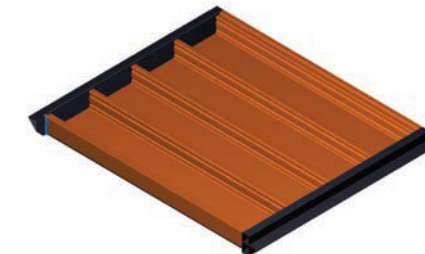
**NODAL DESIGN**  
Scalability focused  
Multi-material  
Multi-platform



**MULTIFORM DESIGN**  
High impact focused



**WELDED DESIGN**  
Cost focused  
Traditional manufacturing



**PULTRUDED DESIGN**  
Weight focused  
Minimal part count

### 01 OVERVIEW

The Advanced Product Development team at Shape sees the emerging electric vehicle battery module protection system segment as a natural fit. The company's core manufacturing competencies in advanced high strength steel, aluminum, composites and complex welded assemblies, along with their automotive engineering expertise are already aligned to fit the segment's diverse needs. Shape's extensive history of engineering and manufacturing high-performance impact energy management solutions is also supplemented by robust in-house testing and simulation capabilities.

### 02 MULTIPLE CONCEPTS

A parallel path development strategy is allowing Shape to simultaneously explore multiple concepts to address various customer needs in performance, mass and cost. Each concept draws from one or more of Shape's core competencies in manufacturing, engineering and assembly.

### 04 IMPACT RESISTANCE

Shape's decades of engineering impact energy management solutions provides a unique advantage when optimizing battery enclosures for impacts. By increasing energy absorption and decreasing internal deflection there is more volume available for batteries, which can increase the range of electric vehicles.

### 03 FLEXIBLE DESIGN

Each customer design is a custom engineered solution. Shape has concepts to scale battery trays to multiple platforms, including full fleet solutions. Along with scalability, Shape can incorporate multiple materials and offer high-end adaptability to simplify vehicle integration and individual component adjustments.

### 05 PROTOTYPING & TESTING

Shape is further investing in each concept by building prototypes and conducting extensive testing on areas such as corrosion, impact energy management, sealability, and manufacturability. The company is also performing an extensive comparative analysis with their CAE and advanced product development groups.

SHAPE WELCOMES TOYOTA  
TWO RECENT TOURS LEFT TOYOTA IMPRESSED  
WITH SHAPE'S GROWING CAPABILITIES

# TOYOTA TECHNICAL EXCHANGE

**A**n on-site visit from Toyota is always an exciting event for Shape, but two visits in the span of three weeks provided Shape with a rare opportunity to interact with numerous key customer representatives at their Grand Haven, Michigan corporate headquarters.

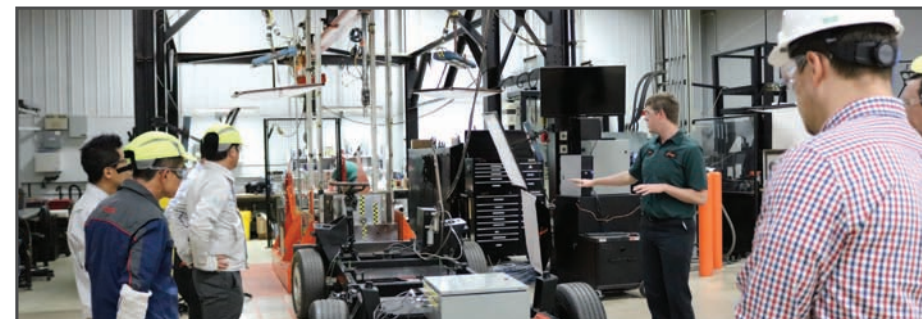
Toyota employees, including senior leadership, from Japan and North America visited Shape's Grand Haven Technical Center and toured key manufacturing facilities on both occasions. Each visit was organized to educate Toyota on emerging technologies and Shape's currently available global manufacturing capabilities.

Additional discussions between the two companies revolved around collaborative efforts on continuous improvement strategies and key strategic pursuits for upcoming next-generation North American vehicles.

Both meetings were seen as another key to strengthening Shape and Toyota's ongoing partnership.



Representatives from Shape and Toyota's CV company, during Toyota's March visit. The group was on-hand to see emerging technologies from Shape, along with a review of current Toyota projects.



Shape Technical Center test engineer manager, David DeVries, highlights Shape's on-site testing capabilities, including their universal test vehicle that is used for component impact testing.



Toby Jacobson, Shape Advanced Product Development product manager, discusses the work Shape has completed on pultruded composites, including their innovative work in developing curved pultrusion.



Representatives from Toyota's North American purchasing group met with Shape this past April to receive a hands-on look at Shape's innovative technologies and specific Toyota production projects.



# VETERANS PROGRAMS



## VET EXPLORER PROGRAM



Veterans gain an understanding of the manufacturing career paths Shape offers with hands-on training and application. The 10-week program introduces the fundamentals of Shape processes like roll forming and welding. Following the initial coaching, veterans have the opportunity to choose a specific career path to explore in-depth.

## MENTOR PROGRAM



Transition isn't always easy and team member support can ease challenges. The veteran mentor program partners experienced Shape team members with veterans to provide an immersive and collaborative training experience.

## SHAPE VETERANS GROUP



A community of veterans exists within the Shape Family, available for support and collaboration. The Shape Veterans Group unites to develop internal veteran programs, brainstorm on opportunities to apply relatable military talent, and engage in community service, including providing resources and volunteering.

## COMMUNITY PARTNER



Locally, Shape is involved with the Veterans Community Action Team in Kalamazoo, Lansing and Grand Rapids. In 2016, Shape was named a bronze level veteran-friendly employer by the Michigan Veterans Affairs Agency. Connecting with veteran organizations, and creating an optimal employment environment is Shape's commitment to providing veterans with new career possibilities.



MILITARY  
APPRECIATION

Shape is partnering with Troops In Transition and WZZM 13 to raise awareness for U.S. military veterans. To learn more visit [wzzm13.com/features/military-appreciation](http://wzzm13.com/features/military-appreciation)

SHAPE CHINA EXPANSION REACHES

# GUANGZHOU

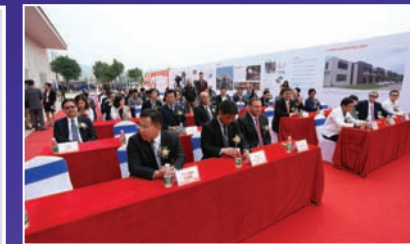
Nine years after Shape Corp. put down roots in Kunshan, China, the company has expanded its footprint in China. This time into the southern city of Guangzhou.

To celebrate the milestone addition, the team in Shape China organized a grand opening ceremony this past February. Close to 100 people attended the event, with representation from Shape's global and local leadership, customers and local government.

The opening ceremony was punctuated by a visually extravagant traditional Chinese drum and lion dancing performance that welcomed guests to the event.

Shape president, Mark White (left), followed by sharing Shape's vision for the Guangzhou facility and the company as a whole. Initial plans have the manufacturing facility executing welding and secondary operations for Shape's regional customer base. Future growth and expansion is a possibility, according to Shape.

"Guangzhou is one of the four largest automobile manufacturing locations in China, with more than seven foreign and domestic OEM's having assembly plants there," said Pat Sullivan, Shape vice president of Shape Asia. "Having a Shape facility there provides us with a strategic and economic advantage for new business growth in the future."



SHAPE FAMILY



# HELLO SUMMER

Michigan's Adventure was the site of this year's Shape Family Day. West Michigan team members and their families were out making a splash, celebrating summer and enjoying all the park had to offer.





# MEET

# PAT SULLIVAN

"OUR HIGH-LEVEL PERFORMANCE IN QUALITY AND SERVICE ARE HELPING US TO GROW WITH CURRENT CUSTOMERS AND PROVIDING OPPORTUNITIES WITH NEW CUSTOMERS."

## VICE PRESIDENT OF SHAPE ASIA

*Pat Sullivan is vice president and managing director of Shape Asia. In his role, Pat leads Shape's Asia team from his post in Kunshan, China.*

### **Q: TELL US ABOUT YOUR ROLE AND RESPONSIBILITIES AT SHAPE?**

I have responsibility for our operations and business strategy in China, along with implementing our global capability strategy in the Asia Pacific region, which is currently focused on supporting our joint venture, TS-Shape, in Thailand and expanding our manufacturing capabilities to support customers in Japan and Korea. Another part of my role is to maintain a strong level of teamwork and coordination between Shape China and our customers in the region.

### **Q: WHAT IS DRIVING THE RECENT GROWTH FOR SHAPE IN ASIA?**

Our sales team's strong global and local customer relationships and Shape's ability to provide high quality, unique solutions in a timely-and-cost effective manner have been keys. Plus, our global footprint and engineering capabilities give us an advantage over most domestic competition and our costs are typically very competitive to multinational suppliers in China.

### **Q: IN WHAT WAYS ARE YOU UTILIZING THE INCREASED FOOTPRINT OF HAVING A NEW FACILITY IN GUANGZHOU?**

The primary driver was to meet a request of our largest customer in China, DongFeng Nissan, to provide localized content and support. China has very high logistics costs and to ship bumper assemblies from Kunshan to Guangzhou made us noncompetitive against suppliers with

facilities in Guangzhou. The long-term strategic advantages of the Guangzhou facility is that it gives us more competitive pricing, supports current customers, and provides opportunities with other OEM's who have operations in Guangzhou.

### **Q: WHAT'S THE MOST REWARDING ASPECT OF YOUR JOB?**

Being a part of an amazing team in Asia and the entire global Shape Family. To have been part of our growth and development in Asia, watching our entire team grow and develop personally as we expand in Asia, as well as globally, is extremely rewarding for me and a lot of fun to be a part of.

### **Q: IN WHAT AREAS ARE CUSTOMERS FINDING THE MOST OPPORTUNITY WITH SHAPE ASIA?**

The majority of our business in Asia is in bumper assemblies. We're also seeing considerable interest in body-in-white products as we improve our cost competitiveness and tolerance capabilities. Also, the electric vehicle market in China is exploding at a rapid pace. We're starting to investigate new opportunities for roll formed products in this area, while continuing to refine our business strategy to support this emerging opportunity.

### **Q: HOW ARE CUSTOMERS BENEFITING FROM SHAPE'S COMMITMENT TO ASIA?**

I think all of our customers see and feel that Shape is very committed to supporting growth and development in Asia. Shape has made significant investment in Asia recently and our customers like this, but of course they always request we add more facilities closer to their assembly locations.

### **Q: WHERE HAS SHAPE ASIA MADE THE BIGGEST STRIDES IN THE LAST YEAR?**

I would say our footprint. In the past year, we have gone from one facility in Asia to four. We have added two facilities with our TS-Shape joint venture in Thailand and India, and our new Shape facility in Guangzhou. We have also made strides in our product diversification strategy in Asia and have successfully landed new business directly in Japan.

### **Q: WHAT MAKES SHAPE ASIA STANDOUT TO YOU?**

Our people. I am lucky to work with and have the support of the best team I have worked with in my entire career. The dedication and commitment of this team is amazing and in my opinion, there is nothing we cannot accomplish together. What makes Shape Asia standout is the same thing that makes Shape standout everywhere we do business, and that is our people.

### **Q: WHAT DOES THE FUTURE HOLD FOR SHAPE ASIA IN YOUR MIND?**

I see a bright future with continued growth. Certainly, there are challenges and obstacles, but this team will tackle them head on and overcome. I see future footprint expansions in China that will be modeled after the success of the Guangzhou facility. And I see expanded partnerships in Japan and Korea to further solidify our footprint, along with becoming a key player in the Southeast Asia and Indian regions with the rapid development of our TS-Shape joint venture.



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Grand Rapids, MI

# shape CORP. THINKERS. BELIEVERS. DOERS.

Thinkers, believers, doers is Shape's identity. It describes the company's history, who they are today, and guides their future. Every day, Shape team members around the world work toward success for themselves, their communities and Shape. These team members exemplify what it means to be a thinker, believer and doer at Shape.



**Jana Martinez**  
Shape Stampings

Pay attention to detail. If you don't know what you are doing ask somebody. Don't hesitate to take a task head on. It gets easier as you do it. The more familiar you are with your parts and number the more it comes naturally.

**Blake Newton**  
Shape Grand Haven

A doer is someone who gets results, has a can-do attitude and always puts forth their best effort. They always do the right thing, even if it is not the easy thing. They are willing to try new things and ask for help when they need it.

**Ron Wallace**  
Shape Texas

Being a thinker means looking at the current process and thinking of a way to possibly do it safer and faster, to make work easier and cost effective. I would advise my peers to use 5S and any other training that Shape has.

**Josué Serratos**  
Shape Mexico

I like the people that work in Shape, because they are respectful and capable; they know their own value and they are focused on the company's improvement, therefore, they help me to ensure my projects' success.

**Ignacio Jungo**  
Shape Mexico

You need to be committed with the company and with yourself. I like that I can develop myself in Shape, personally and with my team. Effort and dedication are keys to success as a doer.