

• • •  
custom tube bending and  
fabricated metal components with  
RIKER craftsmanship + technology

## CAPABILITIES & EQUIPMENT OVERVIEW

### prototyping to production

- bending
- forming
- fabrication
- engineering
- contract manufacturing

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**PARTNERS IN  
PERFORMANCE**



# **THERMAL MANAGEMENT P R O D U C T S**

5. [ 2025 • HEAT SHIELD CAPABILITIES & EQUIPMENT OVERVIEW ]

7122-20250627

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## PREVENTION & RETENTION OF THERMAL MANAGEMENT



### DETACHED:

- Condensed Technology
- Isolated from Vibration Source
- Low Thermal Conductivity
- Single or Multi-Layer

### DIRECT MOUNT:

- Overlapped / Clipped / Weld
- Exceptional Heat Soak
- Low Tooling
- Single or Multi-Layer

## PRODUCT CONSTRUCTION APPLICATION



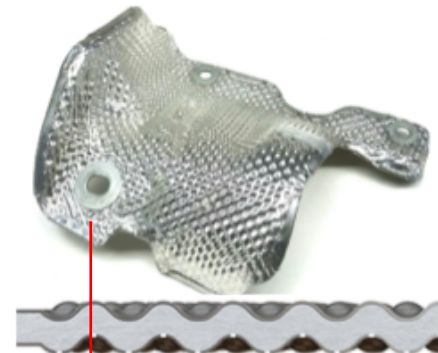
- Single Layer:  
Non-Embossed



- Single Layer  
Embossed or  
Non-Embossed,  
with Insulation



- Multi- Layered  
Embossed or  
Non-Embossed






- Acoustic  
Multi-Layered

The RIKER technical team can work closely with your engineering and design staff to offer technical expertise in Design for Manufacturing (DFM), ensuring optimal performance and cost-effectiveness.

During the quoting phase, RIKER conducts a Forming Analysis to assess the feasibility of the design and identify potential modifications for improved manufacturability.

### HEAT SHIELD TYPES

	Direct Mount	Standard	Multi-Layered
Example			
Material Thickness	0.2 mm– 1.0mm (.008" - .040")	0.2mm to 3.0mm (.008" - .125")	0.2mm – 0.5mm (.008" – .020")
Layer	Single		Two or more
Insulation	Metal layer with insulation in direct contact of heat source	No Insulation	Insulation between metal layers

## HEAT SHIELD OPTIONS

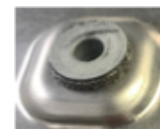
Material Types	Thickness	Trim Edge Condition	Retention Method
<ul style="list-style-type: none"> <li>Stainless &amp; Aluminized Steel, Aluminum</li> <li>Austenitic &amp; Ferric</li> </ul>	<ul style="list-style-type: none"> <li>0.2 mm – 3.0mm (Non-Embossed)</li> <li>0.1 mm – 0.25mm (Embossed Recommended)</li> <li>Standard Foil: 0.2 mm (Embossed)</li> </ul>	<ul style="list-style-type: none"> <li>Hemmed – Suggested material thickness: 0.2mm – 0.4mm                             <div data-bbox="737 737 907 781" data-label="Image"> <p>Single Layer Hem</p> </div> <div data-bbox="737 802 873 867" data-label="Image"> <p>Multi-Layer Hem</p> </div> </li> <li>Non-Hemmed – Material thickness: 0.5mm or greater</li> </ul>	<ul style="list-style-type: none"> <li>Bolt-on</li> <li>ACS Isolation Grommet</li> <li>S-Clip</li> <li>Band Straps</li> <li>MIG / TIG / Resistant Welded</li> <li>Crimped / Rolled Seam Welded</li> </ul>



Bolt-On



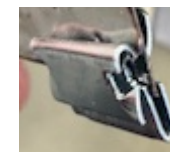
Band Straps



ACS Isolation Grommet



Welding:  
MIG / TIG / Resistance



S-Clip



Crimped / Rolled Seam Welded



## HEAT SHIELD LAYER SELECTION: COMPOSITION

Single Layer (NON-EMBOSSSED)	Single Layer (EMBOSSSED w/ INSULATION)	Multi-Layered	Acoustic (MULTI-LAYERED)
<ul style="list-style-type: none"> <li>Typical Material Thickness: 0.2mm to 3.0mm</li> </ul>	<ul style="list-style-type: none"> <li>Typical Material Thickness: 0.2mm to 0.4mm</li> <li>Insulation Thickness: 3.0mm to 12.0mm</li> </ul>	<ul style="list-style-type: none"> <li>Typical Material Thickness: 0.2mm</li> <li>Insulation Thickness: 3.0mm to 6.0mm</li> <li>Cold Side Material: Embossed</li> <li>Hot Side Material: Embossed</li> </ul>	<ul style="list-style-type: none"> <li>Typical Material Thickness: 0.2mm</li> <li>Insulation Thickness: 3.0mm to 6.0mm</li> <li>Cold side Material: Embossed Non-Perforated</li> <li>Hot Side Material: Embossed &amp; Perforated</li> </ul>

### Single Layer

(NON-EMBOSSSED)



### Single Layer

(EMBOSSSED w/ INSULATION)



### Multi-Layered



### Acoustic

(MULTI-LAYERED)



## In-House DFM

DFM is one of the collaborative approaches RIKER utilizes to support our customers with lower costs and improved efficiencies.

Design Optimization	Development & Processes	On-Site Solutions
<ul style="list-style-type: none"> <li>In-House CAD Design</li> </ul>	<ul style="list-style-type: none"> <li>In-House Forming Analysis:                             <ul style="list-style-type: none"> <li>Blank Layout</li> <li>Strain Analysis</li> <li>Undercut Analysis</li> <li>Forming Analysis</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>In-House Tool Design:                             <ul style="list-style-type: none"> <li>Soft Prototype Tools</li> <li>Hard Production Tools</li> </ul> </li> <li>Rapid Prototyping</li> </ul>



Red Ren Prototype Tools



2D & 5 Axis Laser Trimming



Production Tools



## MANUFACTURING CAPABILITIES

### Comprehensive Equipment and Tooling Solutions

Serving automotive, commercial (on- and off-highway), industrial, RV, and powersports applications.

### Custom Manufactured Solutions

- Tailored to your needs and industry requirements
- Rapid Prototyping
- Roll Embossment
- Stampings, including:
  - Shields: single-layer and multi-layer
  - Muffler Components: partitions, baffles, end caps
  - Supports: brackets, braces, stand-offs



Item Type	Specification
Material Thickness Range	0.1mm to 10mm (.006" to .400")
Material Selection	Common type of material include Aluminized Steel, Stainless Steel, Aluminum, Cold rolled/Hot rolled  Grades 304/409/439/1008/1010/1100/5052
Roll Embossment (Sheet - Steel / Aluminum)	0.1mm to 0.25mm (.003" to .010")

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## OVERVIEW

### MECHANICAL PRESSES

- Capability:
  - up to 250 ton
- In a single operation performs pre- and post-bend cutting, piercing, and forming



8 Presses in Operation



A man with short dark hair, wearing a grey t-shirt, is looking down at a piece of machinery in a workshop. The background is slightly blurred, showing industrial equipment and a red wall. A semi-transparent dark grey box with a red border is overlaid on the left side of the image, containing text.

## CORPORATE OVERVIEW

RIKER is a USA contract manufacturer producing custom tube bending, laser cutting, and fabricated metal components for some of the world's most recognized companies

- IATF 16949: 2016 & ISO 14001:2015 certification
- specializing in round and rectangular metal tubing, as well as flat sheet steel
- offering a range of vertically integrated services and capabilities
- investments in new equipment and technologies
- privately-held ownership — The Cypress Companies





## A HERITAGE OF INNOVATION

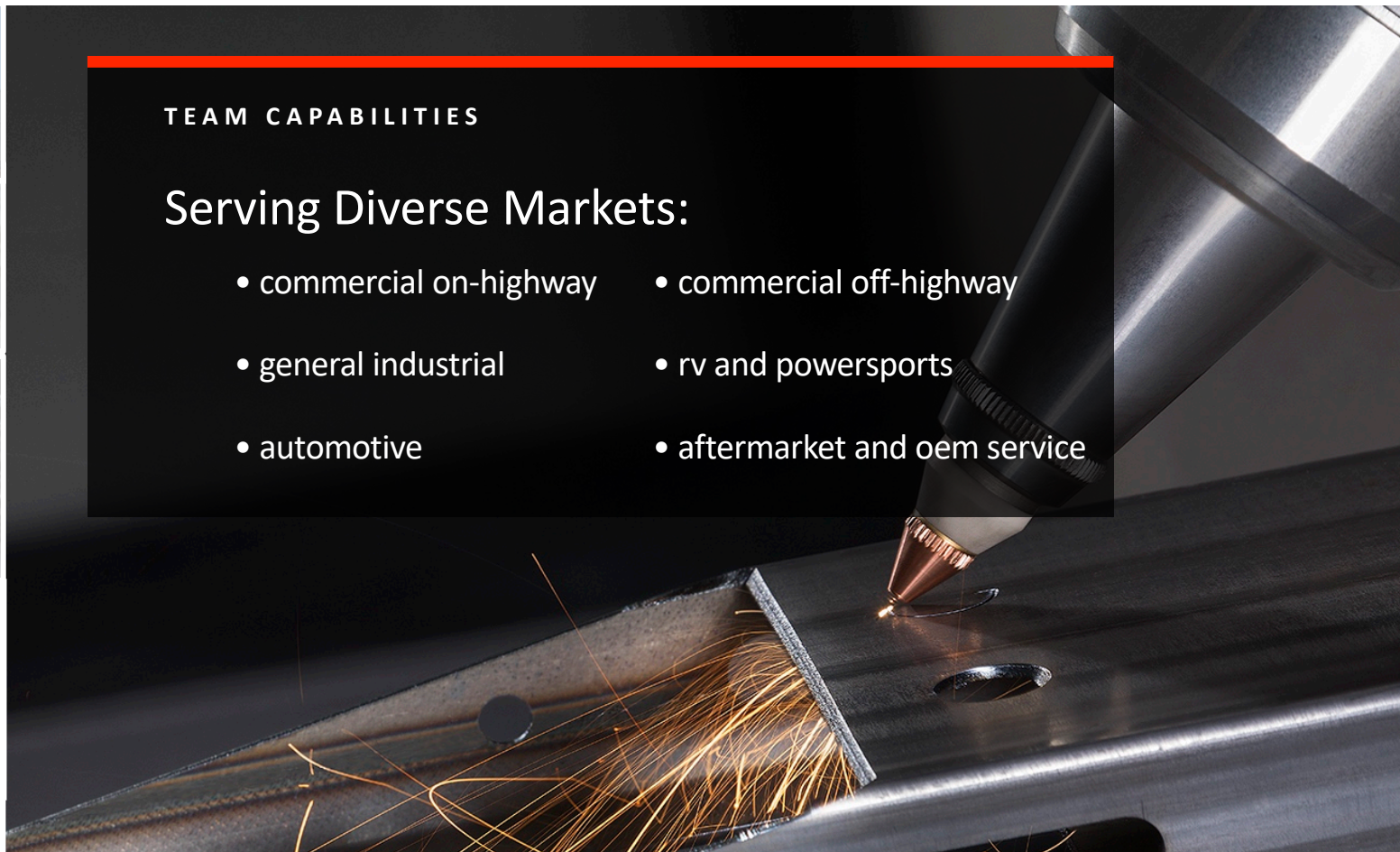
- Established in 1932, RIKER began our legacy of precision bending, forming and fabrication with the innovation of a better, quieter muffler.
- Today, our team aligns technology with modern, experienced craftsmanship to deliver a broad range of high quality metal components for managing exhaust, air and fluid transfer, structural and other applications, to a diverse range of industries.



## TEAM CAPABILITIES

### Serving Diverse Markets:

- commercial on-highway
- commercial off-highway
- general industrial
- rv and powersports
- automotive
- aftermarket and oem service



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### *We are nimble.*

Because we aren't a company burdened with layers of management, we can make decisions quickly and put plans into action before many of our competitors.

### *We are flexible.*

We can process changes from concept to drawing to final product with input from all invested parties to make the change as seamless as possible.

### *We are experienced.*

Our employees, on average, have over 15 years manufacturing experience with us and our longest tenure employees have over 30 years of experience.

WHAT SETS  
RIKER  
APART  
FROM OUR  
COMPETITORS?

### *We excel at collaboration.*

Whether it is a brand-new part or a modification to an existing part, our engineers and manufacturing people are ready to take your needs and turn them into a finished product to your satisfaction.

### *We are solution oriented.*

Engineering, Manufacturing, Sales, and upper Management work as a team to provide our customers with solutions to everyday manufacturing problems.

### *We communicate*

throughout the process, not just when we need information. We believe we can't over-communicate with our customers.



thank you

our advantage: our team

YOUR CONTRACT MANUFACTURING PARTNER • BENDING • FORMING • FABRICATION • ENGINEERING • PROTOTYPING TO PRODUCTION



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