

MetalForming

LIVE
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Automotive Leader**

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SPEAKER INTRODUCTION

ABOUT UHY

**30+ Office
Locations**

**1,800+
Professionals**

**50+ Years of
Experience**

U.S. Coverage

- Top 30 firm in the United States

International Coverage

- Top 20 global professional services firm
- 8,500+ professionals in 100+ countries

Comprehensive Services

- Corporate Finance / M&A
- Consulting/Advisory
- Tax
- Audit / Assurance
- Forensic, Litigation, & Valuation
- International



Manufacturing Expertise Serving Middle Market

- **2,000+ manufacturing clients** including OEMs, tiered suppliers, prototype/low volume, tool & die, plastics, and metals clients
- **Professionals with prior manufacturing industry experience**
- **Access to industry data and experts** including public & proprietary databases and strong network of industry contacts
- **Host Annual Manufacturing & Automotive Outlook Conferences**
- **Quarterly publications** including “Manufacturing Insider” and “NA Automotive Production Forecast Summary”
- **Active participation in manufacturing industry groups**
 - Precision MetalForming Association (PMA)
 - Jackson Area Manufacturing Association (JAMA)
 - Michigan Manufacturers Association (MMA)
 - National Tooling and Machining Association (NTMA)
 - Society of Automotive Analysts (SAA)
 - Society of Automotive Engineers (SAE)
 - Original Equipment Suppliers Association (OESA)
 - Aerospace Industry Association of Michigan (AIAM)

METAL FABRICATION EVOLVING INDUSTRY INSIGHTS

Today's Podcast To Highlight Best Practices For Integrating HMLV Metal Fabrication



Equipment / Operations / Tooling



Procurement / Supply Chain



Manufacturing Costs / Finance

SETTING THE STAGE

What's Driving Growth For High Mix Low Volume (HMLV)

Customization / Consumer Preferences / Innovation / Niche Products

Electric Vehicles

Specialty Luxury Vehicles

Bespoke Automotive Components

Compressed Product Launch Timelines and Costs



Covid19
Geopolitical/Nearshoring
Response

Supply Chain Risk Mitigation Due To Geopolitical Issues.

Demand For Medical Equipment & Related Products Due To Covid-19

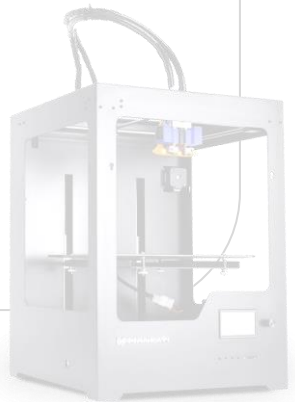
Demand For Aerospace & Defense Supply Chain National Security Risk



Technology & Automation
Advancements

Improve Throughput / Efficiency With Robots/Cobots. To Make Costs More Competitive

3-D Printing Additive Manufacturing Making Vast Improvements For Low Volume Niche Products



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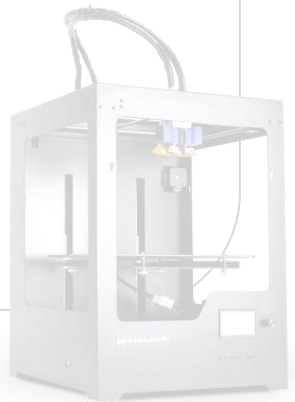
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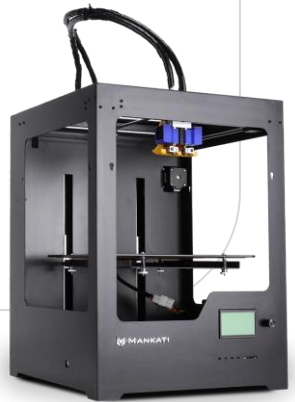
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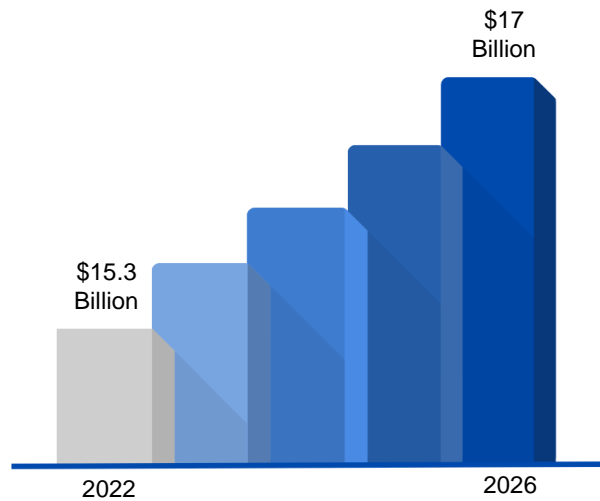
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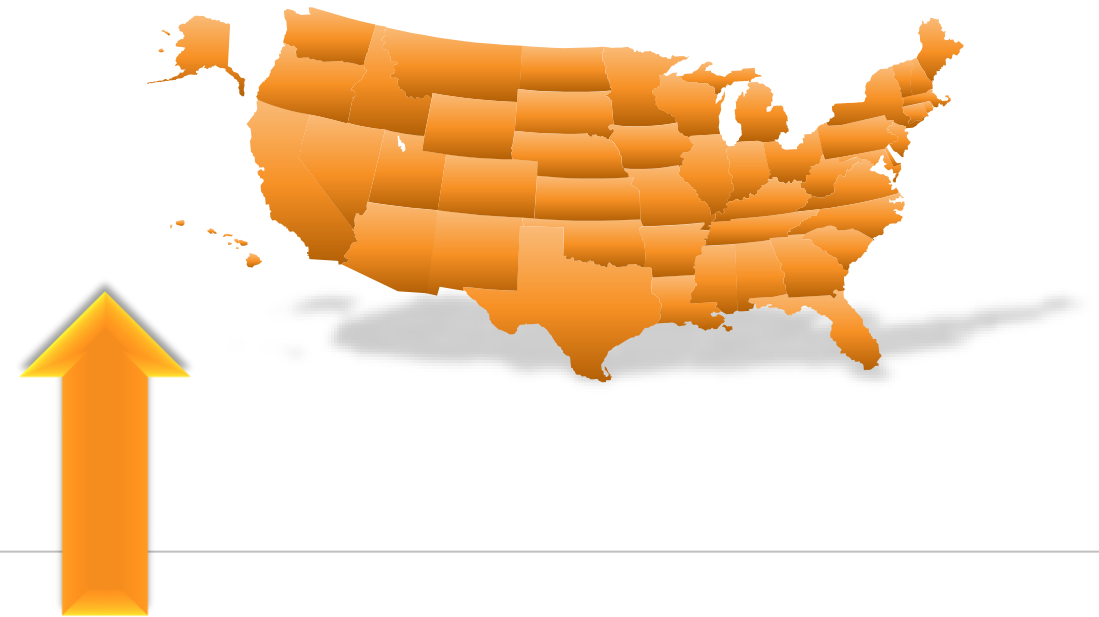
INDUSTRY OVERVIEW

Industry Market Overview and Trends

Global Sheet Metal Fabrication Expected to Reach **\$17B** by 2026, up from \$15.3B in 2022.



Current U.S Market \$2.7B,
Expected to Increase by **\$1B** in 2026.



HMLV VS. LMHV

“High Mix Low Volume ”

“Low Mix High Mix ”

Points To Consider

HMLV

- Customization = Higher Prices
- Meet Customer Demand
- Adapt to Changing Market Conditions
- Reduced Working Capital
- Bridge Gap Between Prototype and Scale Production
- Reduced Tooling Costs

- Increased Operational Complexity
- Higher Production Costs/Lumpy
- Demanding Quality Inspection
- Focus on Planning/Scheduling
- More Risk Supply Chain/Procurement
- Limited Economies of Scale
- Lack of Skilled Labor

LMHV

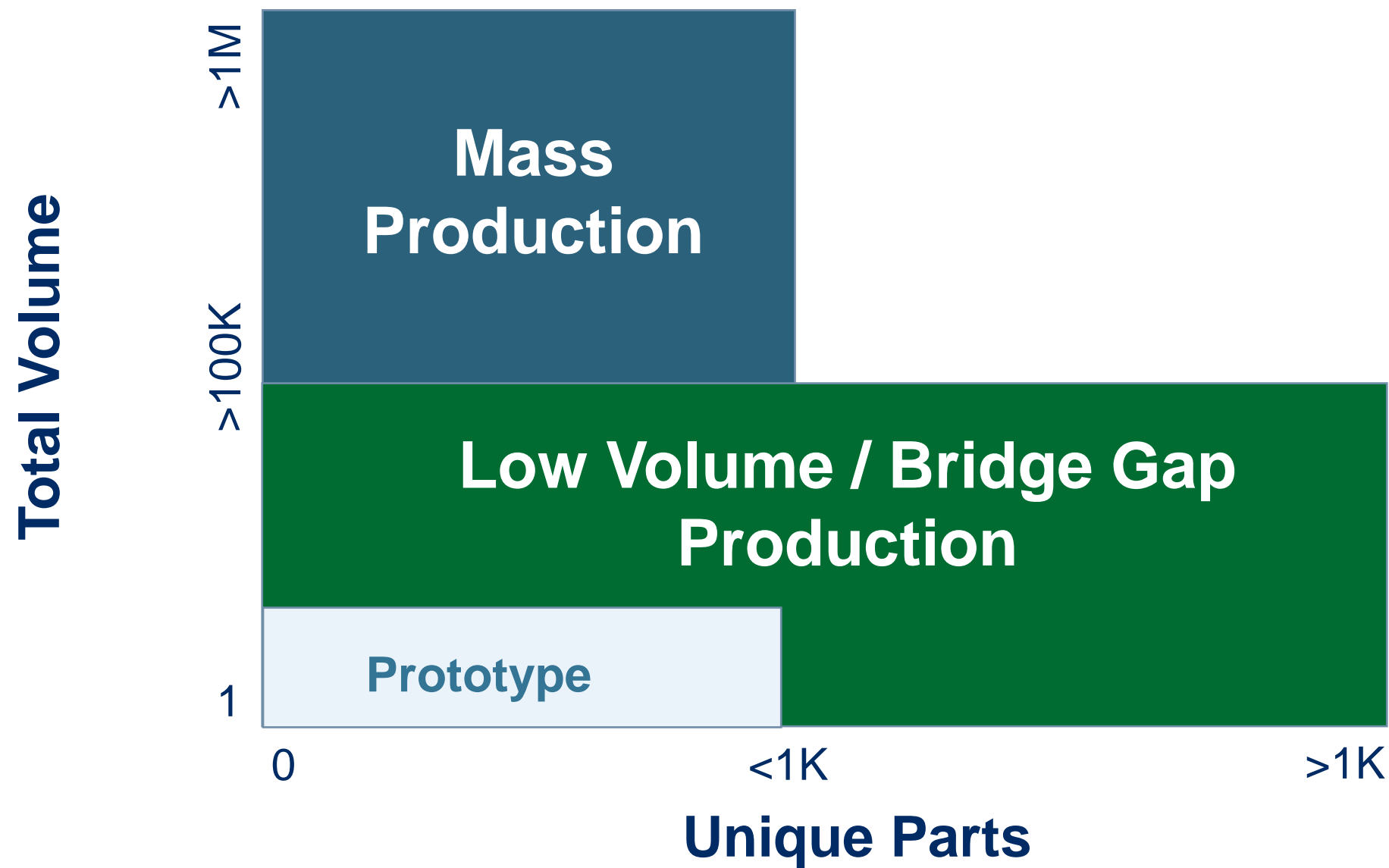
- Limited Product Diversity
- Fewer Customers
- Reduced Complexity
- Lower Production Costs

- Reliance on Large Programs
- Reduced Flexibility
- Higher Working Capital Requirements
- Higher Fixed Cost Structure
- Lack of Skilled Labor

BENEFITS

PITFALLS

Production Decision - Matrix

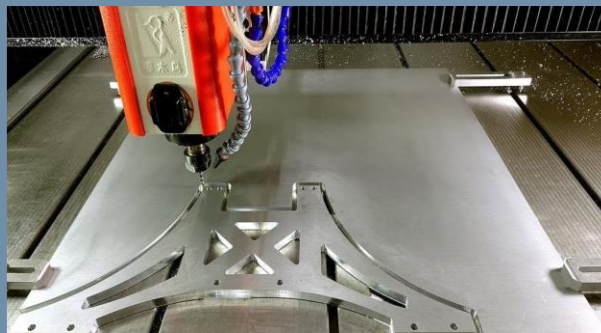


HMLV CAPITAL OVERVIEW

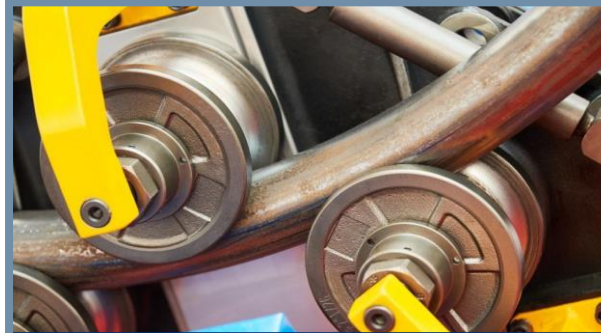
Equipment List In HMLV, All Working Together



SPECIALTY PROCESSING



CNC



FORMING



STAMPING



TURRET PUNCHING ARMADA



WELDING

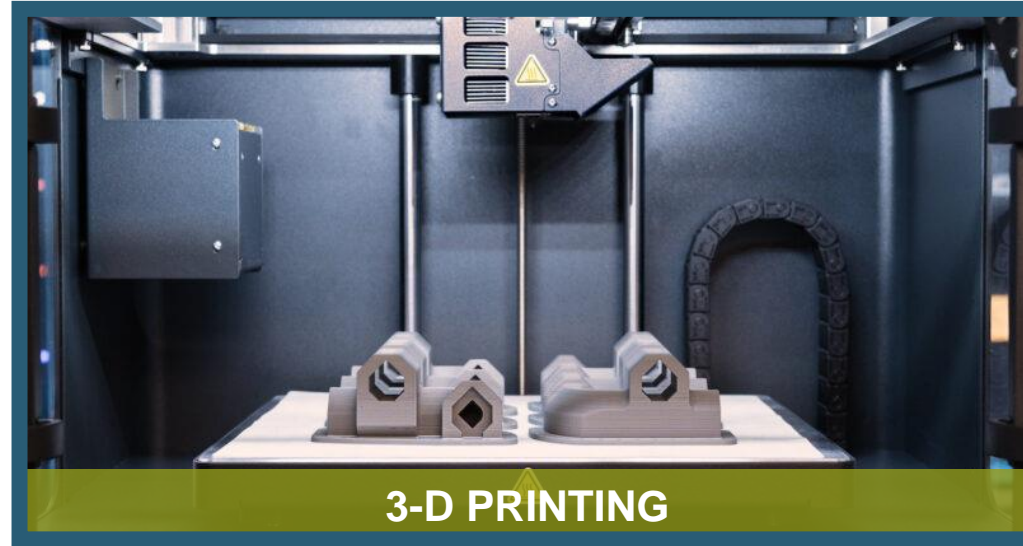


BENDING



TOOLING

The Future Is Here



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LET'S DIVE INTO IT!

