



MacLean-Fogg
COMPONENT SOLUTIONS

**MACLEAN-FOGG
COMPONENT SOLUTIONS**

**ENGINEERED
SOLUTIONS**

ADP 2024 - MEXICO

2024

INDUSTRIES SERVED



AGRICULTURE



APPLIANCE



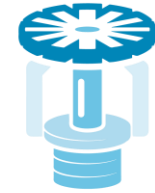
AUTOMOTIVE



CONSTRUCTION
VEHICLE



FURNITURE



FIRE SAFETY



HAND TOOL



HEAVY DUTY TRUCK
& TRAILER



INDUSTRIAL
ENGINE



INDUSTRIAL
MOTOR



INDUSTRIAL
SOLUTIONS



MILITARY
& DEFENSE



MINING



OFF-HIGHWAY



RECREATIONAL
VEHICLE



ROAD
CONSTRUCTION



WATER FLOW
& CONTROL



WIND POWER



PLANT OVERVIEW'S
APPENDIX



MACLEAN CURTIS

250K SQ. FEET | 2 LOCATIONS | 275 EMPLOYEES

KEY PRODUCTS

Gear Blanks
Transmission Components
Engine Components
Hydraulic Connectors
Fasteners



KEY INDUSTRIES

Automotive
Heavy Duty Truck
Off-Road



CORE PROCESSES

Multi-Spindle Machining
Rotary Transfer Machining
CNC Machining
Skiving
Grinding
Assembly



MACLEAN CURTIS

KEY PRODUCTS

- Automotive Transmission Components
- Automotive Engine Components
- Automotive Steering & Suspension Components
- Fasteners

EQUIPMENT AND CORE PROCESSES

- Multi-Spindle Screw Machining
- Hydromat Rotary Transfer Machining
- CNC Machining
- Skiving
- Assembly



METFORM

314K SQ. FEET | 4 LOCATIONS | 400 EMPLOYEES

KEY PRODUCTS

Transmission Components
Gear Blanks
Fasteners
Wheel Nuts
Special Formed Parts



KEY INDUSTRIES

Automotive
Heavy Duty Truck
Industrial Engine
Agriculture

CORE PROCESSES

Horizontal Hot Forging
CNC Machining
Broaching
Shaper Cutting
Drilling
Thread Rolling / Tapping
Cold Forming
Secondary Operations
Heat Treating



METFORM

KEY PRODUCTS

- Automotive Gear Blanks
- Special Purpose Fasteners
- Special formed parts
- Wheel Nuts
- The Metform produced Securex® wheel nuts are the first choice for virtually all hub, drum and wheel OEMs in the U.S.



EQUIPMENT AND CORE PROCESSES

- Hot Forming
 - (1) Hatebur AMP50XL (max OD 110mm, 2.0 kg)
 - (4) Hatebur AMP30 (max OD 73mm, 0.7 kg)
 - (5) Hatebur AMP20 (max OD 40 mm, 0.18 kg)
- CNC, Broach, Shaper Cutting & Drill Machining
- Heat Treat –Quench & Temper, Normalize /Isothermal Annealing
- Phosphate Coating (PTFE)
- Secondary Operations



SAEGERTOWN

140K SQ. FEET | 150 EMPLOYEES

KEY PRODUCTS

Transmission Components
Chassis Components
Appliance Couplings
Fire Safety Couplings
Cutter Bit Bodies
Industrial Fittings



KEY INDUSTRIES

Automotive
Heavy Duty Truck
Heavy Duty Trailer
Agriculture
Off-Highway
Military & Defense
Appliance
Hand Tool



CORE PROCESSES

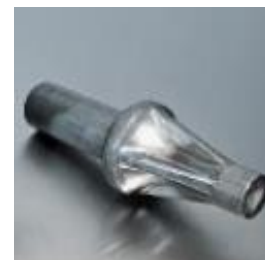
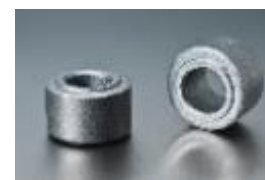
Cold Forming
Precision Machining
Precision Threading
Heat Treat Capability
Automatic Inspection



SAEGERTOWN

KEY PRODUCTS

- Chassis and Suspensions
- Engines and Starters
- Air Bag Inflators
- Seating and Seat Belt Systems
- Wheel Nuts
- Transmission Gear Blanks
- Appliance and Fire Safety Couplings
- Mining and Road Construction Cutter Bit Bodies
- Hand Tool Ratchet Gears
- Industrial Fittings



EQUIPMENT AND CORE PROCESSES

- 9 National Machinery Cold Formers, including (7) 1250's
- Value-Added Precision Machining and Threading
- Heat Treat Capability
- Automatic Inspection Systems

MACLEAN MASTER

140K SQ. FEET | 3 LOCATIONS | 260 EMPLOYEES



KEY PRODUCTS

Transmission Components
Driveline Components
Powertrain Components
Assemblies



CORE PROCESSES

Multi-Spindle Machining
Single-Spindle Machining
Grinding
Honing
Broaching



MACLEAN MASTER

EQUIPMENT AND CORE PROCESSES

- Multi Spindle Machining
- Rotary Transfer Machining
- Broaching (Vertical/Horizontal)
- Drilling (including BTA Deep hole)
- Milling
- Robotic Welding
- Automated 100% Inspection/Testing
- Honing
- Ballizing
- CNC Chucking (Net Shapes)
- CNC Turning
- CNC Milling
- Grinding (profile/ center less)
- Grinding (In & Through Feed)
- Cell Machining
- Cellular, universal, ultrasonic part washing
- Finished Assemblies





COMPONENTS MANUFACTURED BY ENGINEERED SOLUTIONS

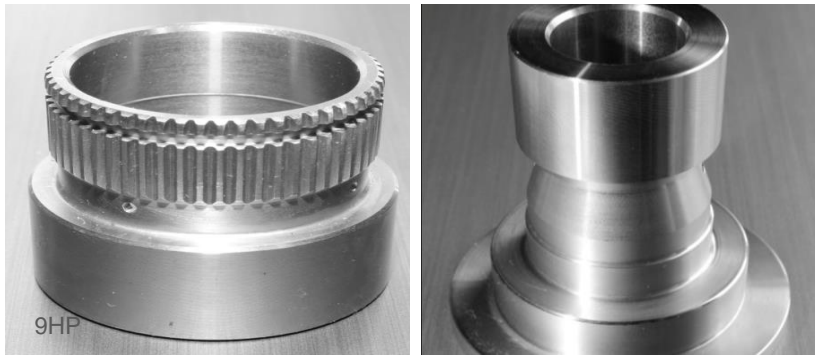


TRANSMISSION COMPONENTS



Retainer
Nuts





GEAR BLANKS

Product Description

- Gear Blanks (Sun & Pinion Gears)

Application

- 6,8,9,10 Speed Transmissions

Volume

- 100M+ Pieces Annually

Operations

- Hot Forming, Cold Forming or Bar Stock
- Normalizing & Isothermal Annealing
- CNC Machining
 - Lathe
 - Shaper Cutting
 - Broaching
 - Skiving
 - Drilling



EV AXLE GEAR BLANKS

Description:

- Sun & Pinion Gears

Applications:

- Electric Axle Transmission

Operations:

- Hot Forming (Outside operation)
- Normalize
- CNC Turning /Drilling
- Shaper Cutting splines



TRANSMISSION SHAFT BLANKS

Description:

- Transmission Shafts

Applications:

- Hybrid Automatic & EV Axle Transmissions

Operations:

- Turning
- Shaper Cutting
- Drilling



SECUREX[®] WHEEL NUTS

Description

- Two-Piece M22 Wheel Nut

Application

- Truck & Trailer

Volume

- 24M Pieces Annually

Operations

- Hot Forging
- Heat Treating
- Assembly
- Tapping
- PTFE Coating (Black)
- Dacromet Coating (Silver) –Outside sourcing.



Ball studs and Joint bolts

SUSPENSION COMPONENTS

Description:

- Ball studs and Joint bolts.

Application:

- Suspension –Automotive

Operations:

- Cold Form
- Thread Rolling
- CNC Turning

Capability:

- O.D. maximum 2 inches
- O.D. minimum 3/8 inch
- Length maximum 9 inches
- Length minimum 3/8 inch



SHAFT COMPONENTS

Description:

- Manual Shafts, Safety Critical

Applications:

- Automatic Transmission Parking Components

Operations:

- CNC Turning /Drilling
- Nitrocarburizing
- Grinding

Capability:

- Diameter = 10mm+
- Overall Length = 150mm (Max)



INDUSTRIAL COMPONENTS

Description:

- Water heater couplings, element hex plugs, etc.

Applications:

- Hot water tanks -Appliance Industry

Operations:

- Cold Form
- Turning / Drilling
- Thread Cutting

Capability:

- 45mm dia /across corners.



ROAD CONSTRUCTION COMPONENTS

Description:

- Road construction bits (mini bits)

Applications:

- Road construction industry.

Operations:

- Cold Formed tires, undercuts, carbide seats, clip grooves, hex features. Braze ready.

Capacity:

- 50mm Dia



MINING INDUSTRY COMPONENTS

Description:

- Mine construction bits

Applications:

- Underground mining industry.

Operations:

- Cold Formed tires, undercuts, carbide seats, clip grooves, hex features. Braze ready.

Capacity:

- 50mm Dia



HAND TOOL INDUSTRY COMPONENTS

Description:

- Hand Tools

Applications:

- Power tools, ratchets, sockets

Operations:

- Cold Formed Spindle, gear, and spline. Heat treating for meeting additional hardness requirements.
- Turned /Drilled as required.

Capacity:

- 50mm Dia

A FEW OF OUR CUSTOMERS

AUTOMOTIVE

STELLANTIS



BorgWarner

H.D. TRUCK & OFF-HIGHWAY



JOHN DEERE



Great Dane

HINO



HENDRICKSON

PACCAR NAVISTAR

INDUSTRIAL



Giant

uponor

STANLEY

ABB



JENMAR

Snap-on

BRADFORD WHITE

METFORM AND HATEBUR WRITE NEXT CHAPTER OF SUCCESS STORY

- **Feb 1st 2024:**
- 11 Hatebur machines at three different plants: us the US based manufacturing company Metform operates **the largest stock of our machines** in all of North America. We are proud to announce that a H0Tmactic HM 35 has just been added to the list.



Forging large parts
Opening up new opportunities

<https://www.linkedin.com/feed/update/urn:li:activity:7158361553811955712/>



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THANK YOU

FOR MORE INFORMATION, CONTACT
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