

Carlson

Tool & Manufacturing Corp.



**CAST METAL
TOOLING**

A worker in a factory setting, wearing safety glasses and an apron, is focused on working on a mold. The background is dark and industrial, with various pieces of machinery and equipment visible. The worker is wearing a dark long-sleeved shirt and a white apron. They are holding a tool and working on a mold that is part of a larger piece of machinery. The lighting is focused on the worker and their work area, creating a sense of concentration and precision.

Five decades of mold building experience

Carlson has been a dependable supplier for cast metals since 1958. We've built countless successful molds over the past several decades and remain a proven tooling provider to many long-term customers.

Our reputation is built upon customer satisfaction, and is achieved by a winning combination of people, processes, modern technology and a relentless pursuit of continuous improvement.

TOOLING TYPES & APPLICATIONS

Cast Metal Tooling Types

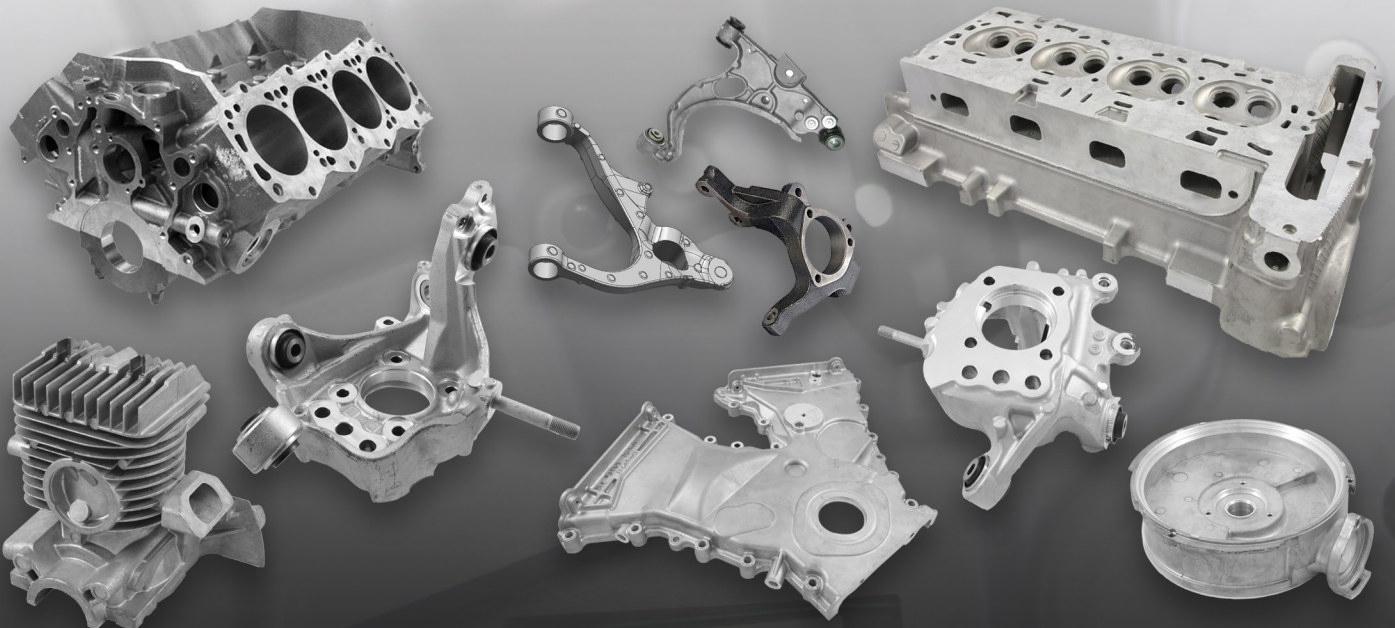
- High Pressure Die Cast Dies
- Low Pressure Die Cast Dies
- Permanent Molds
- Permanent Molds
- Core Boxes
- Green Sand Patterns

Typical End-Use Applications

We specialize in casting tooling for engine, chassis, suspension, transmission and other automotive, commercial and household applications.

Die Repair & Refurbishing

Are your Dies money makers or budget breakers? If your Dies are underperforming, our tooling repair and enhancement services can turn problem Dies into profit builders.



CAST METAL SERVICES

Part Modeling

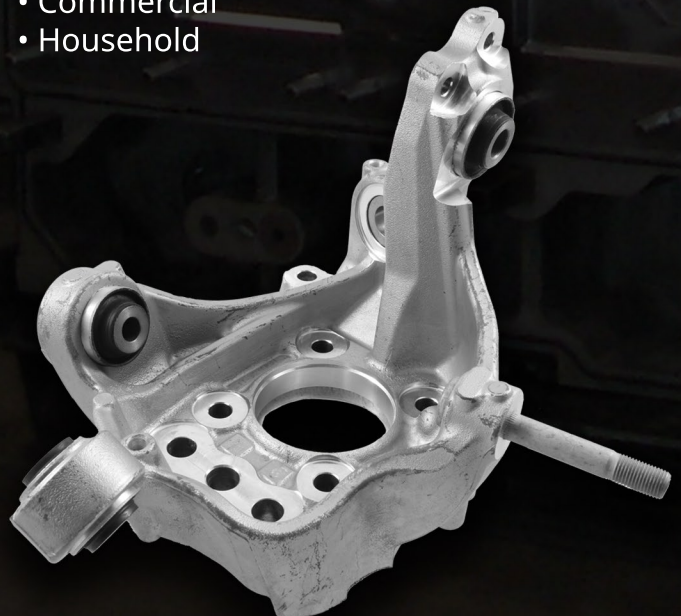
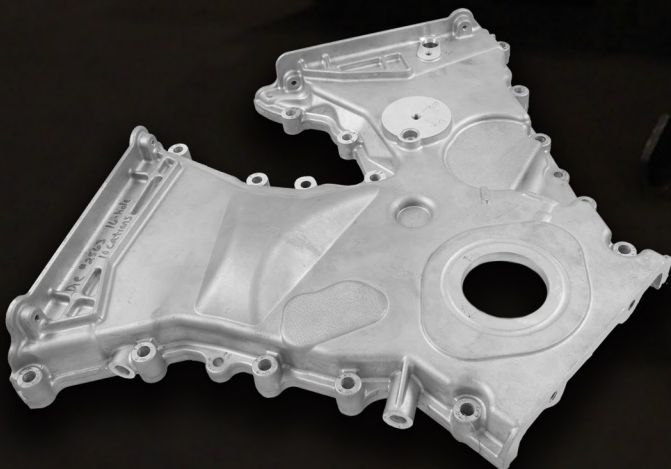
Carlson uses a CAD 3D solids “master model” strategy so that the design intent in all manufacturing and inspection operations supports lean manufacturing principles.

Tool Design & Engineering

- 3D Solid Tool Design
- 2D Detailed Tool Drawings
- Unigraphics NX Primary CAD System
- SOLIDWORKS, Pro/E and AutoCad
- Real-time Collaboration Tools
- Secure Encrypted FTP Site

End Markets Served

- Automotive
- Heavy Trucking
- Agriculture
- Construction
- Recreational Sports
- Marine
- Commercial
- Household



WHY CHOOSE CARLSON?

Competitive, Capable, Committed

COMPETITIVE

- Quality - well established ISO processes produce excellent results
- Lead Time - streamlined processes, multi-shift operation, need for speed
- Value - tools that last & tools that perform - 1st time correct

CAPABLE

- People - highly skilled, cohesive & productive team
- Technology - modern, effectively leveraged for productivity and consistency
- Industry Expertise - accumulated, documented & expertly deployed knowledge

COMMITTED

- Projects - completing projects on-time while meeting expectations
- Customers - delivering on our promises builds your success
- Markets - we focus on markets to build relevant expertise & long term stability

50+
Years of
experience

TOOLING SERVICE & REFURBISHMENT

Money makers or budget breakers?

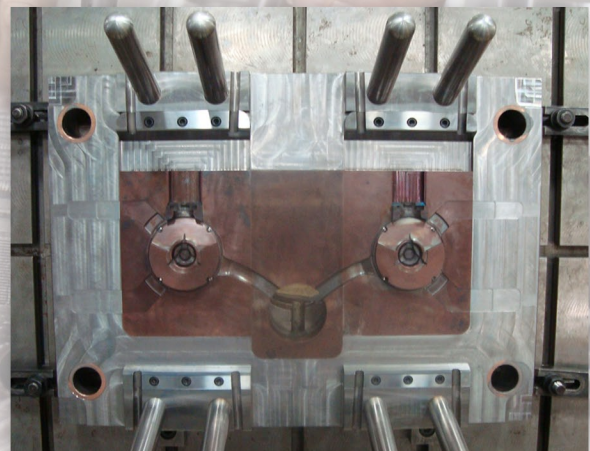
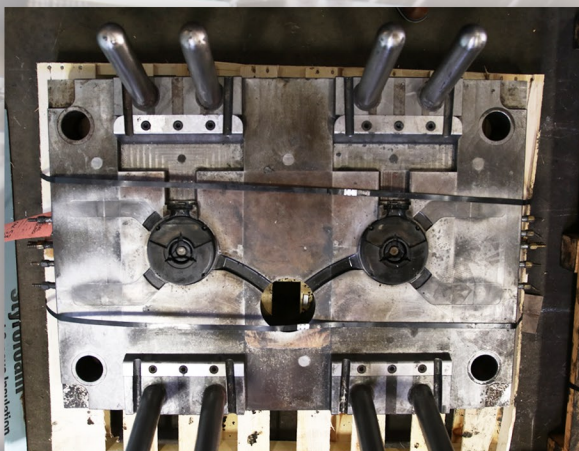
Carlson's highly skilled diagnostic technicians will put their decades of experience to work solving your toughest challenges and problems. Your customers may not care about your problems with cycle times or molds that run too hot, but we do. We can fix individual mold issues à la carte or renew your entire mold to restore good production capability.

Common mold issues we can fix for you:

- Mold cycle time too slow? Our diagnostic tools can find the problems.
- Scrap rate too high? Our team can analyze your parts & steel sizes to verify shrink calculations & reduce your scrap rate.
- Parts with cosmetic issues? Looks aren't everything, but cosmetic variances may reflect larger problems in your mold.

We specialize in:

- Curing hot spots, venting & more
- Improving cycle times
- Decreasing scrap rates
- Resolving product defects



HIGH PRECISION CMM INSPECTION

Inspection Services & Technology

Our quality lab consists of the latest coordinate measuring technology with four CMM machines providing a number of measurement strategies for our customers including tactile point measuring, full-contact tactile measurement and non-contact laser scanning.

- 8,000 lbs under hook
- Faro Edge Arm with Laser Scanning
- DEA Alpha 79" x 129" x 59"
- Brown & Sharpe Global 35" x 59" x 31"
- Brown & Sharpe Performance 35" x 47" x 31"
- Brown & Sharpe Performance 20" x 20" x 20"

Non-Contact Laser Scanning

- 23,000 points/second scan rate
- 5-axis dynamic positioning of scanning laser
- 0.0015" scanning accuracy
- Integration of multiple scans from multiple orientations

Touch Probe Measurement

- Constant contact or touch point measurement
- 5-axis dynamic positioning of probes
- Extensive array of probe lengths, diameters & articulating heads

Reverse Engineering

- We can develop full CAD models from scanned parts for subsequent use
- Color maps can be generated on scans to show dimensional variations
- Comparisons between part and CAD model can quantify distortions to aid diagnostics

THE VISION OF CARLSON TOOL IS TO BE OUR
CUSTOMER'S MOST VALUED EMPLOYEE

Made in the USA

Starts Here

Carlson
Tool & Manufacturing Corp.

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Need Speed? Email tooling@carlsontool.com to get your project started!