

## Callen Die Casting LLC Miniature Zinc Casting

Callen manufactures precision Miniature Zinc Die Cast components with weights ranging up to 12 ounces for numerous industrial market sectors including:

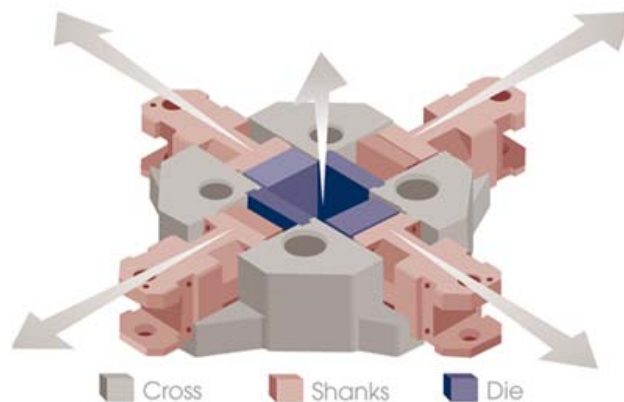
- Security Devices
- Industrial Controls
- Computer Hardware
- Electronics
- Telecommunications



Totally automated Hot-Chambered Miniature Die Casting Machines are capable of process times that exceed 1200 cycles/hr to produce components that do not require secondary trimming or deburring.

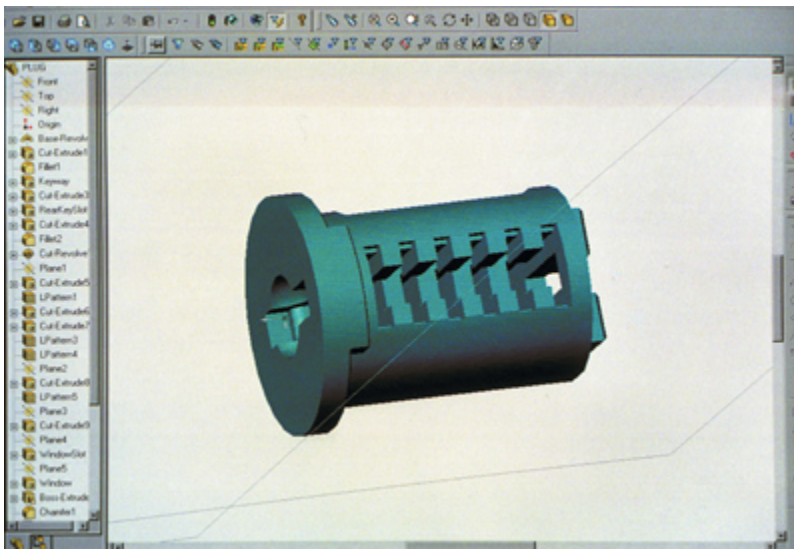
Miniature parts can meet and exceed standard linear dimensional tolerances of  $\pm .002$  and precision linear tolerances of  $\pm .0015$ .

A significant economic advantage of the process is the utilization of inexpensive tooling ranging in price from \$7,500 to \$35,000 that in many cases yields life-of-project utility and low cost parts.



## Callen Die Casting Advanced Engineering

Quality thought always precedes quality manufacturing. A technically capable Die Caster must scientifically verify designs, predict probability of process failure and take preemptive corrective action to avoid predicted design and process failure.



Callen Die Casting is a recognized leader in precision Miniature Zinc Die Casting. Operating as a full-service Die Casting supplier of small zinc components, Callen Die Casting is a "one-stop shop" source of high quality parts where part design, tooling construction, casting and post casting processes are critiqued and meticulously integrated together yielding results which exceed customer expectations. Advance engineering techniques applied throughout planning and manufacturing insures that our cast products demonstrate dimensional accuracy with optimal field performance at low cost.

- ISO 9001:2008 Certified

## Callen Die Casting Value-Added Processes

### In-House

- Vibratory Finishing
- Machining
- Assembly



### Sub-Contracted Processes

- Dichromate Coatings
- Thermal Deburring
- Plating





## Callen Die Casting LLC Miniature Zinc Casting

### Top Ten Reasons for Specifying Precision Automated Miniature Zinc Alloy Castings

1. **Part Size Flexibility**  
Part weights cast range from 0.10 - 12.0 ounces
2. **Minimized Tooling Cost**  
Eliminating large single or multi-cavity dies can reduce tooling cost
3. **Dimensional Accuracy And Capability**  
The process maintains specified tolerances from piece to piece
4. **Near Net Shape As-Cast, Flash Free**  
Eliminates or reduces costly value-added operations
5. **Production Rates Up To 3600 pcs./hr**  
Fully automated processing minimizes manufacturing time and cost
6. **Thin Wall Die Casting Technology**  
Reduced part weight without sacrificing mechanical properties
7. **5 - Slide Capability**  
Complex designs can be manufactured utilizing multiple slides
8. **Zinc Alloys: No. 2, 3, 5, 7 and ZA-8**  
Choose from these certified commercial alloys
9. **Engineering Value Analysis**  
Engineering techniques are applied to maximize manufacturability
10. **Low Piece Part Price**  
Fully automated high production rates utilizing low cost tooling

### The Callen Launch Process

- Design review and refinement while maximizing manufacturability
- Complete DFMEA and PFMEA
- Construct tooling, sourced globally
- Model and mistake proof the injection process
- Sample, correct and refine all injection parameters
- Submit PPAP level 3 on schedule
- Ramp-up routine automated production while further refining the injection process

## Callen Die Casting LLC Facility List

### Miniature Zinc Capacity

15 Five Slide Automated Miniature Zinc Machines

6 Techmire Machines ( 6 x 6, 4 x 4)

### Post Casting Processes

3 Tumble Degate Machines

2 (5) Ton Multipress Trim Presses



### Machining Equipment

6 Machining Centers

Additional equipment custom designed for specific work

### Quality Assurance

1 Mitutoyo Coordinate Measuring Machine

1 Covel Comparator

1 Flexbar Comparator

*A comprehensive collection of standard inspection and measuring devices is maintained and constantly upgraded.*



## Tool Room

*A complete fully equipped tool room to construct and maintain our customer's tooling assets.*

## Die Callen Casting LLC Contact Us



### Callen Die Casting LLC

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