

A Die Casting Design and Production Preplanning Guide

For OEM design engineers considering custom die cast part production:
Use these CWM and industry resources to optimize your designs and reduce your final costs.

Listed items are available in the [Die Casting Design Center](#) of CWM's website: www.cwmdiecast.com.
To view the PDFs listed below, either click the document name or the "X" directly across from the corresponding document. This will direct you to the PDF where you can view or download it for later use.



Click the X in this column to view the .pdf

1 Review CWM's "Die Casting Design & Spec Guide" 16p (Go to RC Sec: Design Guides)	X
(No. 0325) Concise introduction to major design & specification guidelines that drive costs, from preplanning & tooling to post-casting finishing. (Download or Request printed copy)	
2 Consult These Engineering Bulletins & Application/Tech Briefs:	
No. 020 Evaluating Materials & Processes	X
No. 021 Designing Optimum Part Shapes	X
No. 024 Achieving Superior EMI Shielding with Die Cast Housings	X
No. 031 Die Cast Heat Sinks Can Be the Cost-Effective Choice	X
No. 033 Preliminary Guide to Overmolding Die Cast Parts	X
No. 071 Aluminum Alloy Data: Composition, Properties, Characteristics	X
No. 074 Magnesium Alloy Data: Composition, Properties, Characteristics	X
No. 075 Zinc & ZA Alloy Data: Composition, Properties, Characteristics	X
No. 022 Prototyping for Die Casting in All Alloys	X
NADCA* "Product Design for Die Casting" Manual (No.3101)	X
Contact Chicago White Metal at sales@cwmtl.com for more information on how to obtain a hard copy.	
3 Reference the NADCA "Die Casting Product Standards Manual"	X
(No. 3103) Authoritative resource for die cast production specifications, with detailed dimensioning & tolerancing data.	
NADCA "Miniature Die Casting Design & Specification" Manual	X
4 Review CWM's "Quick Guide to Surface Finishing"	X
(No. 3318) 8-page overview of coatings in common use with die castings, design tips for best finishing results, comparative cost/performance chart. Note: Your CWM Regional Sales Engineer can arrange for you to view CWM's Portfolio of sample coated die cast plates.	
5 Prepare Checklists for Tooling, Production & Finishing	
Assure that all of the key requirements for your parts are clearly communicated:	
No. 065 Tooling Requirements Checklist	X
No. 090 Die Cast Production & Surface Finishing Specifications Checklists	X
6 Most Important: Consult Die Casting Expertise Before You Lock In	
None of your homework can equal the value of a critique of your product pre-planning by an experienced die casting engineer. Arrange a preliminary meeting or call with CWM. Email us at sales@cwmtl.com or give us a call at (630) 595-4424. You can also contact a sales engineer in your area on our website, www.cwmdiecast.com .	
7 Evaluate Custom Die Caster Capabilities Credentials	
Use a die caster's website and profile brochures to help provide an overview of capabilities, experience & reputation. Arrange a thorough plant visit with minimum notice provided. Start with initial evaluations on the Internet. Visit CWM at: www.cwmdiecast.com Download or request printed copies of Capabilities Brochures on a die caster's total services: (All of these documents and more are available in our Die Cast Design Center for free, no subscription needed.)	
No. 200 Overview of CWM Die Casting & Production Capabilities 4p	X
No. 3100 CWM Comprehensive Die Casting Capabilities Brochure 16p, color	X
No. 3400 CWM Miniature Zn & ZA-8 Die Casting Capabilities Profile, Alloy Data 2p, color	X
No. 3300 CWM CNC Machining Technologies Capabilities Brochure 8p, color	X
No. 3200 CWM Contract Manufacturing Capabilities Brochure 8p, color	X

Document listings and availability subject to change. CWM cannot be responsible for specific results obtained with use of the above information.

* NADCA: North American Die Casting Association

**Chicago
White Metal
Casting, Inc.**



649 IL Route 83
Bensenville, Illinois 60106-1340
Phone: (630) 595-4424
sales@cwmtl.com
Website: www.cwmdiecast.com

Certified Aluminum, Magnesium
& Zinc Die Casting and
Miniature Zn & ZA-8 Die Cast Parts,
CNC Precision Machining, and
Total Contract Manufacturing

**Our Quality Management and
Environmental Management Systems:
ISO 9001 and ISO 14001 Registered**
EXCELLENCE IS EXPECTED