

# 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 [OEM Resource Center section](#) of CWM's website: [www.cwmdiecast.com](http://www.cwmdiecast.com).  
View this PDF form on screen & click "yellow" hot links direct to proper web section. Many items are available free to OEMs by download or mail request. Or on order with CWM's Special Discount Order Form.

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<b>1</b>	<b>Review CWM's "Die Casting Design &amp; Spec Guide" 16p</b> (Go to RC Sec: Design Guides) (No. 0325) Concise introduction to major design & specification guidelines that drive costs, from preplanning & tooling to post-casting finishing. (Download or Request printed copy)	X	X
<b>2</b>	<b>Consult These Engineering Bulletins &amp; Application/Tech Briefs:</b>		
	No. 020 Evaluating Materials & Processes (Go to RC Sec: Engineering Bulletins)	X	
	No. 021 Designing Optimum Part Shapes (Go to RC Sec: Engineering Bulletins)	X	
	No. 024 Achieving Superior EMI Shielding with Die Cast Housings (Go to RC Sec: Tech Briefs)	X	
	No. 031 Die Cast Heat Sinks Can Be the Cost-Effective Choice (Go to RC Sec: Tech Briefs)	X	
	No. 033 Preliminary Guide to Overmolding Die Cast Parts (Go to RC Sec: Tech Briefs)	X	
	No. 071 Aluminum Alloy Data: Composition, Properties, Characteristics (Go to RC Sec: Engrg. Bulletins)	X	
	No. 074 Magnesium Alloy Data: Composition, Properties, Characteristics (Go to RC Sec: Engrg. Bulletins)	X	
	No. 075 Zinc & ZA Alloy Data: Composition, Properties, Characteristics (Go to RC Sec: Engrg. Bulletins)	X	
	No. 022 Prototyping for Die Casting in All Alloys (Go to RC Sec: Engrg. Bulletins)	X	
	Or purchase the NADCA* "Product Design for Die Casting" Manual (No. 3101) at CWM Discount. 178 pages contain information & data in nearly all bulletins above, plus much more. Order by phone with Special CWM OEM Discount Order Form (Go to RC Sec: Reference Manuals)		X
<b>3</b>	<b>Reference the NADCA "Die Casting Product Standards Manual" 223p</b> (No. 3103) Authoritative resource for die cast production specifications, with detailed dimensioning & tolerancing data. Order at Special CWM Discount (Go to RC Sec: Reference Manuals) NADCA "Miniature Die Casting Design & Specification" Manual (Go to RC Sec: Reference Manuals)		X
<b>4</b>	<b>Review CWM's "Quick Guide to Surface Finishing"</b> (Go to RC Sec: Engrg. Bulletins) (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-Engr. can arrange for you to view CWM's Portfolio of sample coated die cast plates.	X	X
<b>5</b>	<b>Prepare Checklists for Tooling, Production &amp; Finishing</b> (Go to RC Sec: Engrg. Bulletins) 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	
<b>6</b>	<b>Most Important: Consult Die Casting Expertise Before You Lock In</b> None of your homework can equal the value of a critique of your product preplanning by an experienced custom die casting engineer. Arrange an early meeting with CWM. Phone or Email your CWM Sales-Engineering Representative. (see Website for locations & information)		
<b>7</b>	<b>Evaluate Custom Die Caster Capabilities Credentials</b> 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 and its divisions at: <a href="http://www.cwmdiecast.com">www.cwmdiecast.com</a> <a href="http://www.cnc-technology.com">www.cnc-technology.com</a> <a href="http://www.cwm-contractmfrg.com">www.cwm-contractmfrg.com</a> Download or request printed copies of Capabilities Brochures on a die caster's total services: (Go to the OEM Resource Center section web entry page for download links to these CWM Capabilities Brochures)		
	No. 200 Overview of CWM Die Casting & Production Capabilities 4p	X	X
	No. 3100 CWM Comprehensive Die Casting Capabilities Brochure 16p, color	X	X
	No. 3400 CWM Miniature Zn & ZA-8 Die Casting Capabilities Profile, Alloy Data 2p, color	X	X
	No. 3300 CWM CNC Machining Technologies Capabilities Brochure 8p, color	X	X
	No. 3200 CWM Contract Manufacturing Capabilities Brochure 8p, color	X	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

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