



Investment Casting Drawing Details

From concept to finished drawing, Hitchiner's engineers are ready to assist you at all stages of casting design. They can provide suggestions and guidance regarding tolerances and design details, alloy selection and even approximate pricing. Their aim is to help you select the best manufacturing process, whether or not it is investment casting.

If you decide to order an investment casting, it is important to make sure that all the details needed to make a fair and accurate quote are included on the drawing. Doing so enables the bidding foundries to quote in a timely manner on an equal basis. It also shortens lead times and reduces confusion, manufacturing problems and the potential for changes and price increases after you place your order.

At a minimum, the following items of information should be included on the drawing in your request for quote. Please call Hitchiner if you have any questions about this list.

1. Part number
2. Part name
3. Revision level
4. Alloy, including heat treat condition and property requirements ([Hitchiner Technical Update 1D3](#) or [2D2](#))
5. Tolerances, casting and machining ([Hitchiner Technical Update 1BD1](#))
6. Finish—cast surface is normally 150 RMS [150 microinch (3.8 μ m)] or better; metal-to-metal contact areas will normally be machined and should be identified on the drawing
7. Critical dimensions and machining location points for part layout
8. Corner radii and fillets for local areas or overall
9. General wall thickness unless otherwise dimensioned
10. Any special surface treatments such as carburizing, plating or hardening
11. Machine stock to be added on machined areas
12. How the parts are to be identified and packed for shipment
13. Inspection and certification requirements

Hitchiner is able to accept your 2-D or 3-D file electronically over the internet using either FTP (File Transfer Protocol—FTP client software required) or as an HTTP upload from our web site using a standard web browser. Please contact your Hitchiner representative for user name and password information. Anonymous uploads are not permitted.

