

Casting Specifications & Tolerances - IPC Foundry Group

	Maximum	Minimum	Notes
Casting Weight	35 lbs	Ounces	Our foundry network can create slightly larger castings contact us for details.
Length/Width of Casting	24 inches	.25"	Maximum length/width may be increased by up to 6" depending on the shape of the part.
Linear Tolerances	+/- .040 inch	+/- .003 inch	As a general rule, for up to 1 inch \pm 0.010 inch. For each additional inch thereafter, \pm 0.003 inch.
Hole Diameter	Part Dependent	.250 inch	As a rule, through holes should be no longer than six (6) times their diameter; blind holes two (2) times their diameter.
Radii Tolerance	+/- 1/64 inch	+/- 1/64 inch	A general tolerance is \pm 1/64 inch
Flatness (Possible Dishing) <small>*areas under 6 square inches*</small>	.016 Inch TIR	No Significant Dishing	Flatness refers to a single plane surface; in investment casting, usually a function of the volumetric shrinkage of the part.
Minimum Section Thickness	N/A	.050 \pm .010	Under normal circumstances, walls thinner than .050 \pm .010 are not practical although they may be feasible in certain designs. In most instances, walls of .090 \pm .010 are desirable.
Angular Tolerances	Part Dependent	\pm 1/20 inch	Angular tolerance is dependent on the configuration forming the angle. A general rule of thumb is \pm 1/20 for well supported sections.

Note: This table is a general reference for investment castings. Each project has individual nuances that may allow for slightly different maximum and minimum tolerances. Contact our team with any questions, to order a sample part, or to learn more about ordering a casting for your business. Contact us today at sales@ip-casting.com