

advantages of die casting

The Die Casting manufacturing process offers many advantages and benefits.

1. Die casting provides complex shapes within closer tolerances than many other mass production processes.
2. Die castings are produced at high rates of production. Little or no machining is required.
3. Die castings can be produced with thinner walls than those obtainable by other casting methods ... and much stronger than plastic injection moldings with the same dimensions.
4. Die casting provide parts which are durable, dimensionally stable, and have the feel and appearance of quality.
5. Die casting dies can produce thousands of identical castings within specified tolerances before additional tooling may be required.
6. Zinc castings can be easily plated or finished with a minimum of surface preparation.
7. Die castings can be produced with surfaces simulating a wide variety of textures.
8. Die cast surfaces, as cast, are smoother than most other forms of casting.
9. Holes in die casting can be cored, and made to tap drill sizes.
10. External threads on parts can be readily die cast.
11. Die castings provide integral fastening elements, such as bosses and studs, which can result in assembly economies.
12. Inserts of other metals and some non-metals can be die cast in place.
13. Corrosion resistance of die casting alloys rates from good to high.
14. Die castings are monolithic. They combine many functions in one, complex shaped part. Because die castings do not consist of separate parts, welded or fastened together, the strength is that of the material, not that of threads or welds, etc.

Die casting is an efficient and economical alternative to other processes. When used to its maximum potential it can replace assemblies of a variety of parts produced by various manufacturing processes at significant savings in cost and labor.