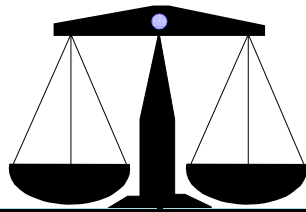




# Permold Castings Vs. Fabrications

**Our Permanent Mold Process offers many advantages over traditional machined parts, weldments, and other fabrications.**



What I Give Up...	What I Gain...
<p><b><u>DIMENSIONAL CONTROL:</u></b> Machining tolerances are generally tighter than casting tolerances, although they often rival and surpass those of weldments and other fabrications. However in special situations, Gupta Permold has the ability to cast features to much tighter tolerances than standards allow. Contact us for details or a “Permold Quick Design Guide”.</p>	<p><b><u>COST SAVINGS:</u></b> Castings with value-added processes like machining, finishing, etc. are generally much more economical than fabrications. Couple this with Gupta Permold’s very competitive tooling costs, and the financial gain provided by castings in almost all cases needs to be examined.</p>
<p><b><u>DRAFT:</u></b> For proper ejection and castability, castings need draft whereas fabrications generally do not. Specifically, draft is needed on all surfaces perpendicular to the parting line.</p>	<p><b><u>HIGHER CAPACITY:</u></b> By definition, the Permold Process is a production-oriented process not suited for parts with annual usages of less than 500-1,000/yr. If you think your supply chain is “choked” by hard-to-manufacture fabrications, castings may be the answer you’re looking for.</p>
<p><b><u>SURFACE FINISH:</u></b> Wrought metal products will often have a superior surface finish when compared to castings. However, the Gupta Permold Finishing Center exists to meet your demanding aesthetic requirements. Gupta Permold offers a wide variety of finishes to suit your needs and duplicate many popular fabricated looks.</p>	<p><b><u>SHORTER LEAD-TIMES:</u></b> Again, fabrications often involve many set-ups and production steps which lead to long cycle times and in turn long lead-times. Castings, on the other hand, start much closer to your final “net-shape”, and therefore drastically shorten the cycle-time, leading to shorter lead-times and huge cost savings.</p>
<p><b><u>WALL THICKNESS :</u></b> Castings have minimum wall thickness requirements for castability primarily dependent on part complexity and surface area. Contact Gupta Permold for more information.</p>	<p><b><u>MOLDED INSERTS:</u></b> Unlike fabrications, any metallic or ceramic piece can be cast integrally into a Permold casting. Therefore, expensive options like heli-coiling and pressing inserts can be discarded. bulk of material in lightweight aluminum. Please consult Gupta engineering for more information on molded inserts.</p>
<p><b><u>RADI AND FILLETS:</u></b> Sharp corners are never possible in castings except in instances where an edge is formed by the parting line.</p>	
<p><b><u>INTEGRITY:</u></b> All fabrications for the most part take on the exact integrity of the raw material. Castings, on the other hand, will have less integrity due to the inherent physics of foundry processes.</p>	

Often, the most challenging casting “conversion” project involves going from a fabrication to a casting. A certain amount of creativity, patience, and sacrifice is often needed from the designer as well as the foundry. However, once these “leaps” and trade-offs are resolved, the payoffs are absolutely tremendous.

### **CONTACT** **GUPTA PERMOLD:**

If you would require more information on any of the ideas suggested, please feel free to contact us at your convenience. We look forward to working with you on your next project.

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