Top Five Benefits of Additive Manufacturing (You Never Considered)

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Since the introduction of 3D printing (additive manufacturing) in the 1980s, the benefits of producing small quantities of complex parts fast is well understood among manufacturing circles. Despite this, the industry is just beginning to understand exactly how transformative the technology will be to the future of manufacturing. As the technology becomes more sophisticated with the onset of new IT capabilities, and as acceptance and familiarity grows among mold manufacturers, the additional benefits will further reveal themselves.

The following are the top five benefits of additive manufacturing that highlight where the technology is taking us today.

1. Freedom to design and innovate without penalties

If there is one thing product engineers can count on, it’s modifications and redesigns; and it is one of the most important aspects of designing. Additive manufacturing is no longer just about the physical creation of a part. It brings design and innovation to the forefront. Having this creative freedom in the production process, without time or cost penalties, is the ultimate advantage over traditional manufacturing. This is especially true when you consider that over 60 percent of designs submitted for tooling are modified while in production. In traditional manufacturing, this can quickly lead to significant increases in cost and time delays. Additive manufacturing mitigates this through the movement away from static designs while enabling engineers to try multiple iterations simultaneously with minimal additional costs.

Companies do not have to tolerate design flaws that come with amortizing the cost of the tool before starting over. This freedom to design and innovate without penalties yields big rewards: compressed production schedules, better products, more product designs and ultimately, more products.

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