TRITONE PRO-TIPS

Enable Manufacturing of Sealed-Hollow Metal & Ceramic Parts with MoldJet

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THE HOLLOW PART CHALLENGE (MoldJet):

Conventional manufacturing methods can't produce **hollow metal parts** in a single component. To compensate, engineers often resort to assembling multiple parts—an approach that introduce several drawbacks:

1. Unnecessary weight
2. Inability to achieve fully sealed parts, which is crucial for applications requiring sterilization (e.g., medical devices)
3. Excessive material consumption
4. Raises production costs
5. Higher costs of bill of materials
6. Constraints freedom of design

SOLUTION

MoldJet is a layer-by-layer additive manufacturing technology that enables the creating of hollow, sealed parts without the need for assembly or design comprises. During post-processing, the mold is removed with our unique, hands free demolding process enables through the green part's porous structure.

RESULT:

Lightweight and Sealed—No Trade-offs Required.
With MoldJet, manufacturers can design and produce **lightweight, fully enclosed hollow metal components** that were previously impractical using conventional methods.

KEY BENEFITS:

MoldJet process **enables the manufacturing of completely hollow parts** without requiring any modifications to the original design.

- Achieve **light weight metal parts** without sacrificing strength or design integrity
- Eliminate the need for assembly or multi-part fabrication
- Reduce material usage and lower manufacturing costs
- Simplify sterilization and post-processing
- Speed up production and improve efficiency

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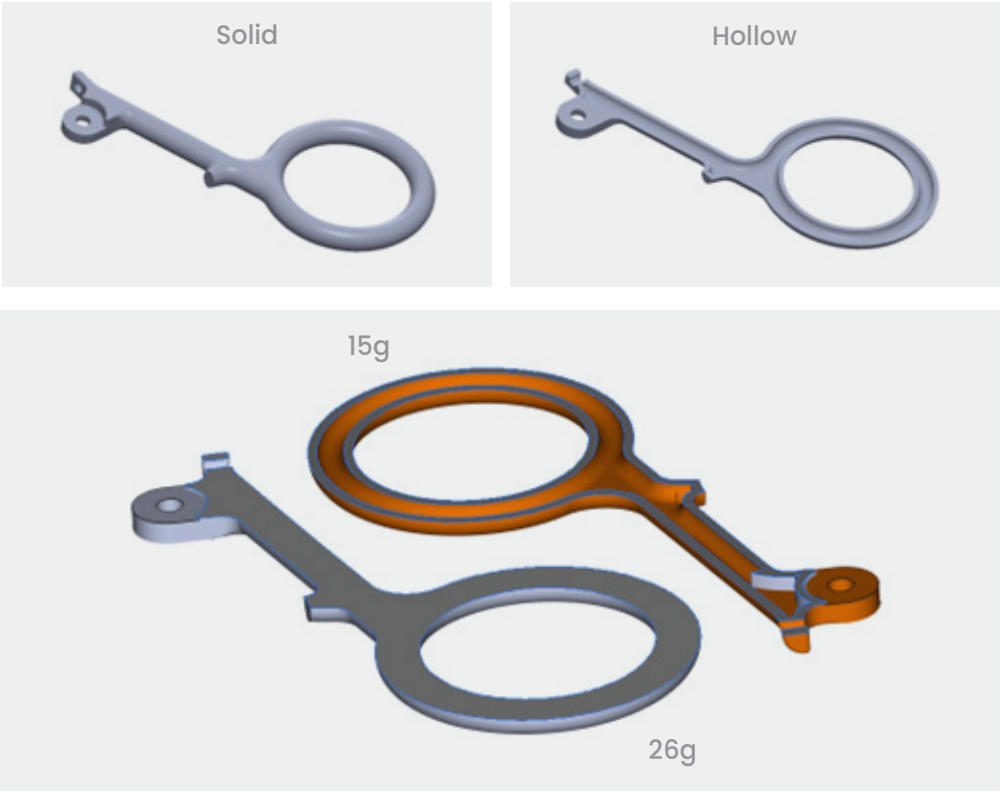
BENEFITS VS. OTHER AM TECHNOLOGIES:

MoldJet, Binder Jet, and Selective Laser Melting benefit from surface finishing processes, but differ in their timelines. The distinguishing feature of MoldJet relies on the strength of its green parts allowing surface finishing to be conducted not only on the final part, but also during the green part stage.

- Enables the manufacturing of hollow metal parts, even when traditional technologies are not viable.
- Eliminate the need for assembly or complex tooling
  Reduces material waste and overall manufacturing costs
- Saves production time while improving efficiency



REAL-WORLD IMPACT:

MoldJet redefines what's possible in metal manufacturing—enabling the production of sealed, hollow components with both **reduced weight** and **enhanced functionality.** For industries like **medical devices, aerospace,** and **fluid handling,** this means cleaner parts, lighter systems, and smarter designs—delivered faster.