



# NEXT LEVEL STAMPING

## UTILIZING ADDITIVE MANUFACTURING

**78%**

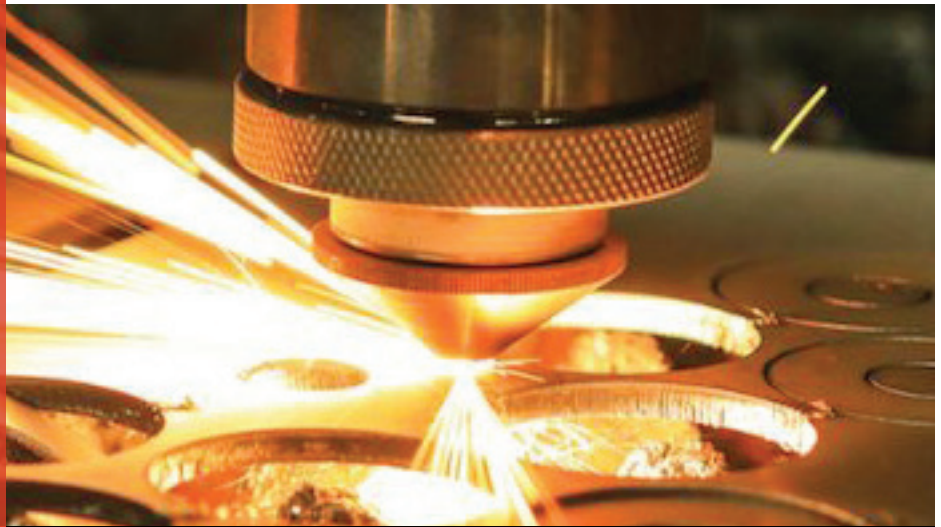
OVERALL COST SAVINGS

**85%**

LEAD-TIME REDUCTION

**\$0**

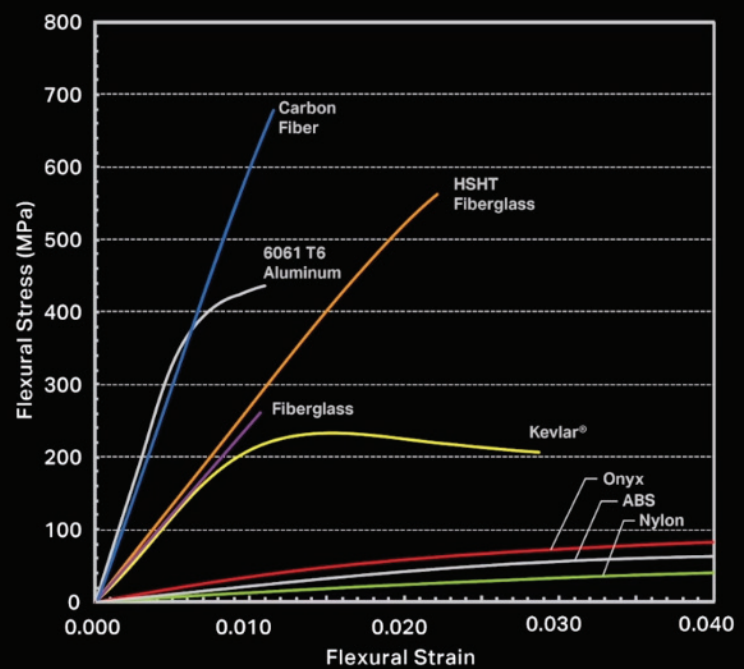
PROGRAMMING COST

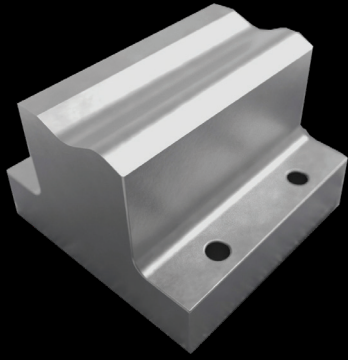


### As Strong as Aluminum

*Additive manufacturing produces punch and die sets capable of withstanding real-life forming pressures and thousands of hits*

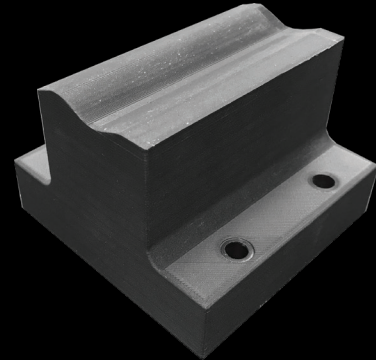
Utilizing a unique combination of composite material with continuous carbon fiber reinforcement creates tooling that is strong enough to withstand the forces from mechanical and hydraulic presses.





### Machined Forming Section

- 30% Material waste
- Requires physical inventory
- Heavy = Material handling limitations
- Program tool path in CAM software
- Premium cost for complexity

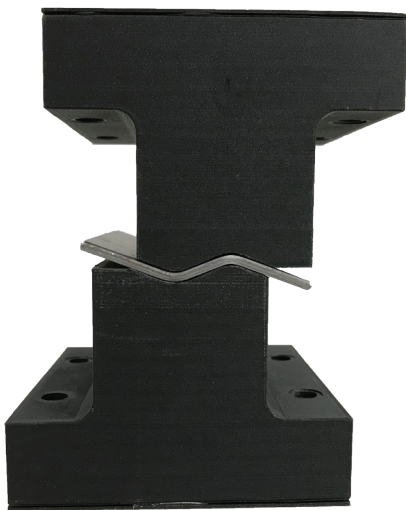


### 3D Printed Forming Section

- No material waste
- Virtual inventory
- Lightweight = Easy material handling
- Print right from CAD export
- No premium cost for complexity

## 3D Printing Forming Sections Are Here

At CAM Logic, we are constantly pushing ourselves, and each other, to redefine conventional thinking. Our goal is to disrupt – what we thought were – the limits of additive manufacturing. When we started talking about the idea of bending steel with plastic, it was often met with a chuckle. Admittedly, we weren't exactly sure what was going to happen either when we loaded our 3D printed die set into a 35-ton mechanical press. What happened was very anti-climactic; the sections formed the blank exactly like they were supposed to. After the tools squatted and we dialed in the press (around piece 200), we produced 5,120 pieces. We ran out of coupons for the test, but we are confident we could load these back in the press and hit 5,000 more.



*Switching tool fabrication from subtractive to additive manufacturing allows production to begin sooner, tool designs to be tweaked without fear of disrupting kick-off, and provides the ability to print tools on-demand.*