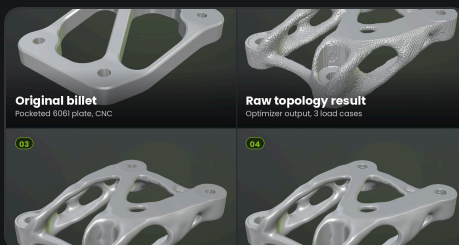
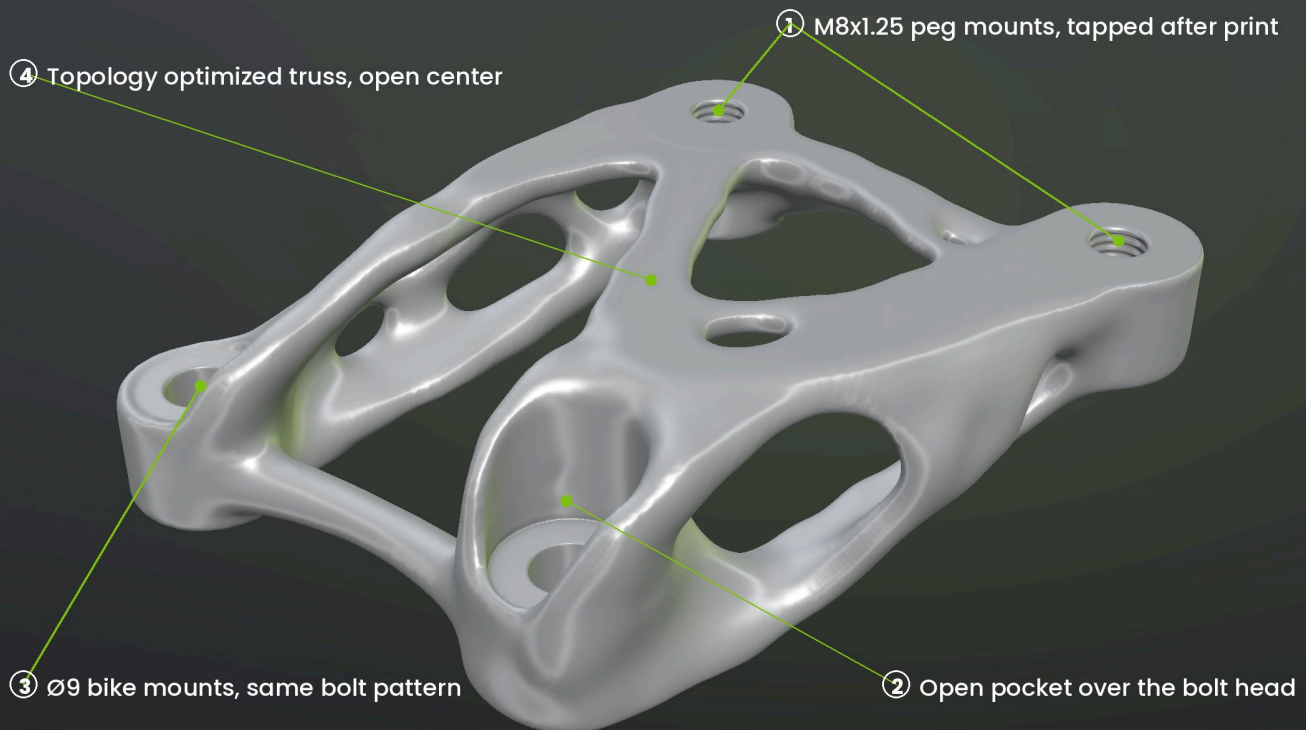


— TOPOLOGY OPTIMIZATION // FEA // METAL AM

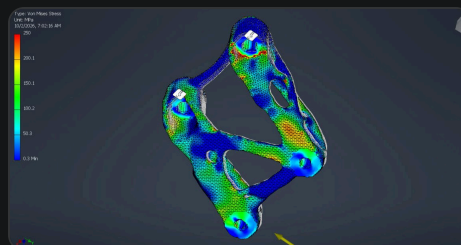
Quoted it in billet. Then redesigned it for printed metal.

A riding school needed passenger peg extension brackets for its Yamaha MT-10 fleet. I quoted the CNC part from their files, then answered the better question: what does this part look like if it is designed for 3D printed metal? Same bolt pattern, same mating faces, about 30% less mass, and stiffer in the same load case.



Billet to print-ready

Original billet, raw topology result, sculpted v4, final v5 solid



Checked in FEA

Inventor Stress Analysis at 5 kN 40 mm outboard of the peg face.



Left and right

Mirrored from one model. Hole is finished and tapped after the print.

// AT 5 KN, 40 MM OUTBOARD

	BILLET	PRINTED
Mass	about 190g	about 134g
Deflection	23 mm	0.7 to 0.9 mm
Peak stress	about 500MPa	about 230MPa

// FOR RIDERS AND SCHOOLS

Brackets and mounts that bolt to the stock pattern, built lighter and stiffer for fleet and track use.

// FOR SHOPS AND OEMS

Send the STEP. I redesign for the process, check it in FEA and quote it next to the CNC price.



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