Featured Material: FDM Nylon 12 CF

U-Bolt Set Fixture



This fixture is used on a major automotive OEM assembly line of heavy duty trucks. The fixture helps align U-bolts so the rear axle and U-bolt plate can be assembled quickly and without error.



The original fixture design consisted of 10 machined aluminum pieces welded and fastened together. Eckhart optimized the design by 3D printing the fixture using Nylon 12 Carbon Fiber via the new Jigs and Fixtures Application in GrabCAD Print[™]. The software enabled Eckhart to vary the densities of the part, adding solid sections to ensure the fixture was durable and strong enough for the rigors of an assembly line. The Nylon 12 carbon fiber fixture reduced lead time, weight and overall part count of each fixture.

Build Details	
System	Fortus 450mc™
Material	FDM Nylon 12 CF™
Build Time	16 hours, 29 minutes
Model Material Used	29.474 in ³ (74.863 cm ³)
Support Material Used	1.081 in ³ (2.745 cm ³)



ISO 9001:2008 Certified

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