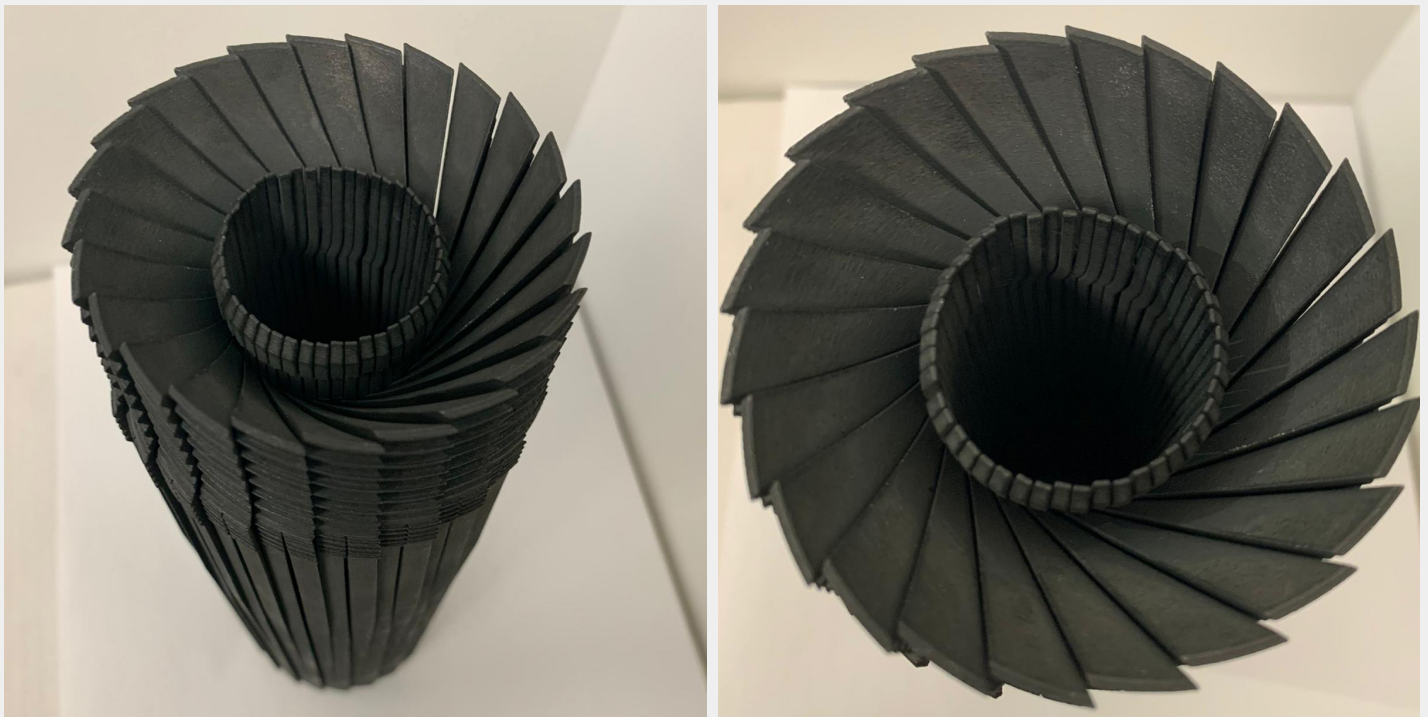


## NORTHSTAR HARNESSES ADDITIVE MANUFACTURING

Northstar is happy to partner with Precision ADM to leverage additive manufacturing, otherwise known as 3D printing, for rapid development of downhole tool components. This technology allows us to integrate assemblies to reduce part count, design shapes that are difficult to build with conventional subtractive machining, and speed our time to market. This part includes tall, slender ribs and complex internal features, which made for a challenging build, but we continue to be impressed with the fit, finish and accuracy that can be achieved with this technology.

For Northstar's engineering team, this opens new possibilities to improve the performance of our tools – we can optimize strength and fatigue life, nest parts, and design otherwise impossible internal cavities in steel, titanium, nickel alloy and other materials.



We're excited to continue to work with Precision ADM on our next generation of tools!