

Male Threads Pro-Tip



Tritone

Male Threads Pro-Tip



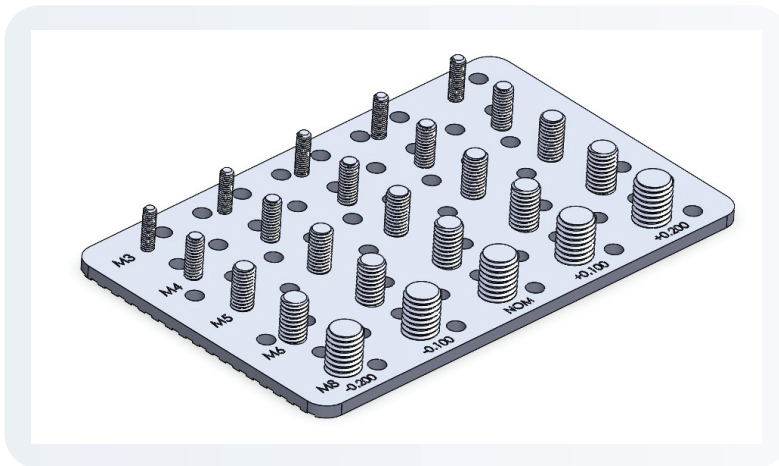
CHALLENGE

Adding multiple male threads to components via post process after additive manufacturing. Parts with multiple thread sizes require additional tooling and time to complete.



SOLUTION

Using MoldJet technology to manufacture male threads. Fine threads, starting at M3 going up to coarse threads, M8, are functional at the 'at sintered' stage. With a minor adjustment to thread dimension, MoldJet technology can reduce post processing time by removing the need to manually add threads to additive parts. By reducing the outer diameter by 0.100 mm of the post, male threads manufactured along the Z axis create a perfect fit.



BENEFITS

- ▶ Reduced Post Processing of multiple threads
- ▶ Only required minor adjustment for success



SUCCESS

- ▶ Manufactured male threads with adjustments of -0.200 mm and up to +0.200 mm on post
- ▶ Used off the shelf nuts to test each thread and gauge fitment.
- ▶ Successful threads allow for smooth feel and no galling

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SUCCESS



Figure 2: Manufactured Model

Post Size	M3	M4	M5	M6	M8
-0.200	Loose Fit	Loose Fit	Loose Fit	Loose Fit	Loose Fit
-0.100	Perfect Fit	Perfect Fit	Perfect Fit	Perfect Fit	Perfect Fit
Nominal	Galling Fit	Galling Fit	Galling Fit	Galling Fit	Galling Fit
+0.100	No Go	No Go	No Go	No Go	No Go
+0.200	No Go	No Go	No Go	No Go	No Go

- Loose Fit
- Perfect Fit
- Galling Fit
- No Go