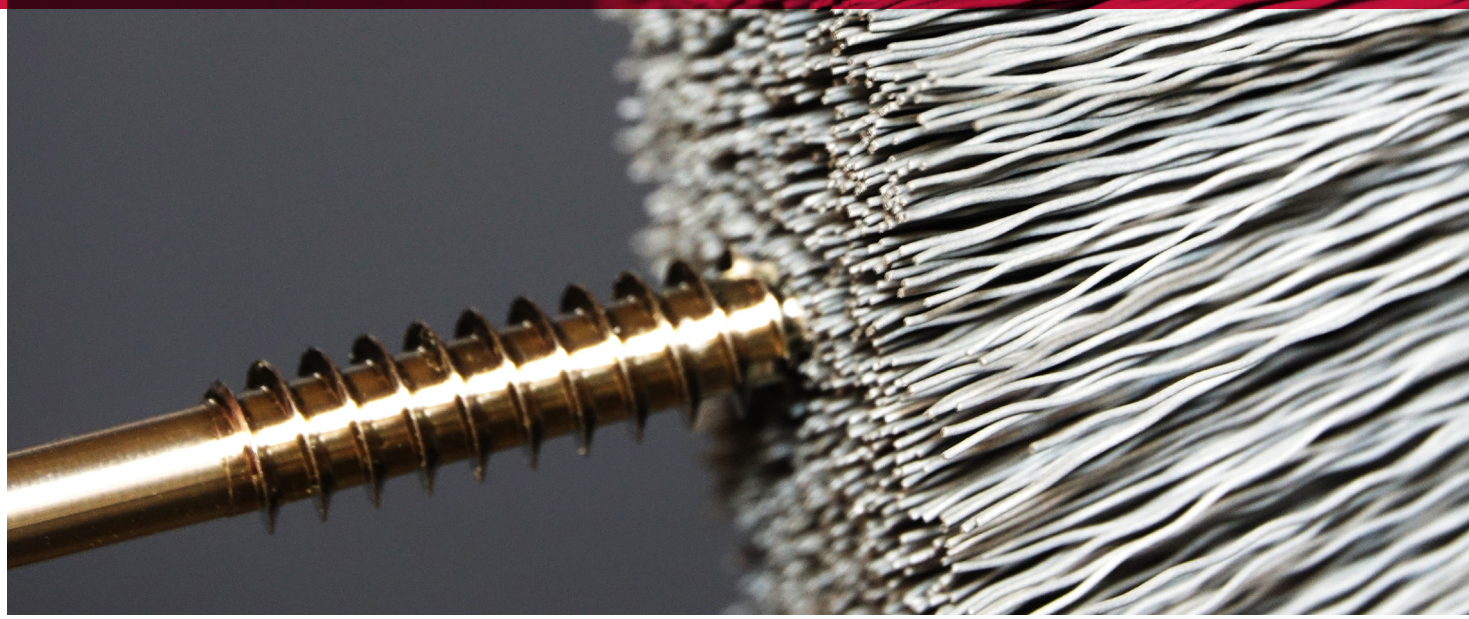
MEDICAL CASE STUDY



Weiler 3" Silicon Carbide Wheels

This application was extremely daunting due to the microscopic nature of the burr. The burr removed from these titanium bone screws are so fine that many of them could not be seen by the naked eye. Because these bone screws are being used in human bodies, it was critical that Weiler develop a process solution that had limited variability and was extremely repeatable.

In order to accomplish this task, the Weiler engineers turned to a Silicon Carbide filament design. The versatile properties of the brush design for this application allowed it to remove 100% of the burrs in all the tight nooks and crannies, yet was forgiving enough that it did not impact part geometry and tolerances. The radial wheel brush utilized a very fine 320 grit filament. The brush was run with coolant at 2,600 SFPM and a depth of interference of 0.030 inches while the screw was slowly rotating.