



# BALES

METAL SURFACE SOLUTIONS

Here at Bales, we understand customer success is essential for building strong partnerships. This case study provides insight on our solution, which empowered our client to overcome industry challenges, boost productivity, and achieve their growth goals.



OPTIMAL PART QUALITY



GUARANTEED SATISFACTION



TRUSTED PARTNERSHIP

## NIBORE for Demolding Issues

### Challenge

A medical molder faced significant challenges with the performance of their parts, which were produced using tooling made from M2 steel. Specifically, they experienced persistent release issues with the Pebax material, a common concern in injection molding that can lead to production delays and increased costs. Despite experimenting with various demolding techniques, they were unable to resolve these problems effectively.

### Solution

Recognizing the need for a solution, they turned to our **Nibore** coating, which has proven highly effective in situations where release is critical. The key advantage of this coating lies in the extremely low coefficient of friction that **Nibore** offers at 0.05 or less. Given its success in similar applications, it was worth testing to see if it could enhance the demolding process for their existing tooling.

### Results

The demolding process was straightforward, as the Pebax material released easily on its own without the need for additional steps to the process. Reduced friction has improved the release of Pebax parts from the molds, increasing production efficiency and minimizing downtime while enhancing overall quality. The first tool is performing well, but a second tool is showing material stretching, leading to consideration of Nibore as a potential solution.

### Conclusion

By leveraging our innovative solutions, in particular **Nibore** plating, the molder enhanced its manufacturing capabilities, saved time, and ultimately achieved better product integrity. They can now confidently meet their production targets with less operational disruption. As they continue to evaluate the performance of their tooling, particularly with the second tool showing potential areas for improvement, they remain optimistic about achieving further advancements in quality and efficiency.