

High-Performance Precision Laser Cutting for Coffee Brewers

Challenge

Industrial production of stainless steel or aluminum coffee brewers often incorporates laser cutting of outer panels, frames, slots, vents, logos and other difficult shapes.

This laser cutting process needs to ensure clean edges, minimizing post-processing, and enable tight tolerances to fit component systems accurately together.

It is necessary to protect visible parts from laser sparks and other wear, in order to not compromise the esthetics of the end-product.

Application

Nitto's FIBERGUARD 509H10P has a strong rubber-based adhesive to bond well to stainless steel or aluminum which allows for precision cutting without lifting of the tape and thus avoid damages to the substrate surface. Furthermore, the high laser-absorbent PE film will allow for an efficient and fast laser cutting process, improving overall productivity.

Key Benefits

- High laser-absorbent PE film: The opaque PE-film ensures an efficient absorption of the laser light allowing for high-speed laser cutting improving the output units per hour.
- Strong rubber-based adhesive system: The high adhesion makes FIBERGUARD 509H10P suitable for grinded and rougher stainless steel or aluminum. Due to the adequate bonding, laser cutting of more complex shapes is done with ease and precision. After laser cutting, further processing such as bending or stamping, can be done as well.
- Release coating and print: The film contains a release coating to make unwinding from tape roll easier. Additionally, the printed Nitto logo and arrows help indicate the lamination direction.
- Bio-circular film: Contributes to 30% bio-circular content, certified by ISCC+ mass balance approach, reducing the carbon footprint up to 50% of the product while maintaining 100% quality and functionality.



Conclusion

Nitto's commitment to innovation and quality ensures that our FIBERGUARD series provides reliable and effective solutions for the metal laser cutting industry. By using a high laser-absorbent film in combination with a strong rubber-based adhesive, our FIBERGUARD series stand out as a trusted choice by laser machine manufacturers.

