

Selected cleaning applications for e-mobility with high power fibre lasers

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This presentation includes two examples of using MOPA fibre lasers for e-mobility cleaning applications.

The first application, hairpin cleaning, involves the removal of plastic isolation from copper bus bars. This is a very important and challenging process because the whole coating has to be removed without any damage to the copper surface. Very broad tests using many types of lasers and various wavelengths showed that fibre lasers offer the best outcome from a quality and speed point of view. This presentation shows the best results for cleaning various types of hairpin coating.

The second application is battery foil cleaning. This is a very novel process used by the battery industry to remove coatings from battery foils. The process requires high speed cleaning without damaging the very thin metal foil (copper and aluminium). The challenges and the best results will be presented.