



HOW TO CLEVERLY CLEAN CONFORMAL COATING

CONFORMAL COATING



WHAT IS THE CUSTOMER'S STORY?

The customer struggled to remove the conformal coating from the coating frames and some PCBs.

They used to use **sandblasting before**, which is manual cleaning, during which the operator has to be present, so the skills of the operators play a significant role in the process. Furthermore, **sandblasting damages the surface of coating frames and components of PCBs**, which causes the surface is wrinkled and is much more difficult to clean. Because of that, **DCT was asked to offer a fully automatic cleaning solution** in 1 chamber cleaning system.



WHAT WE TESTED?

Our mission was to clean conformal coating from coating frames and PCBA.

Types of Cleaned Components:

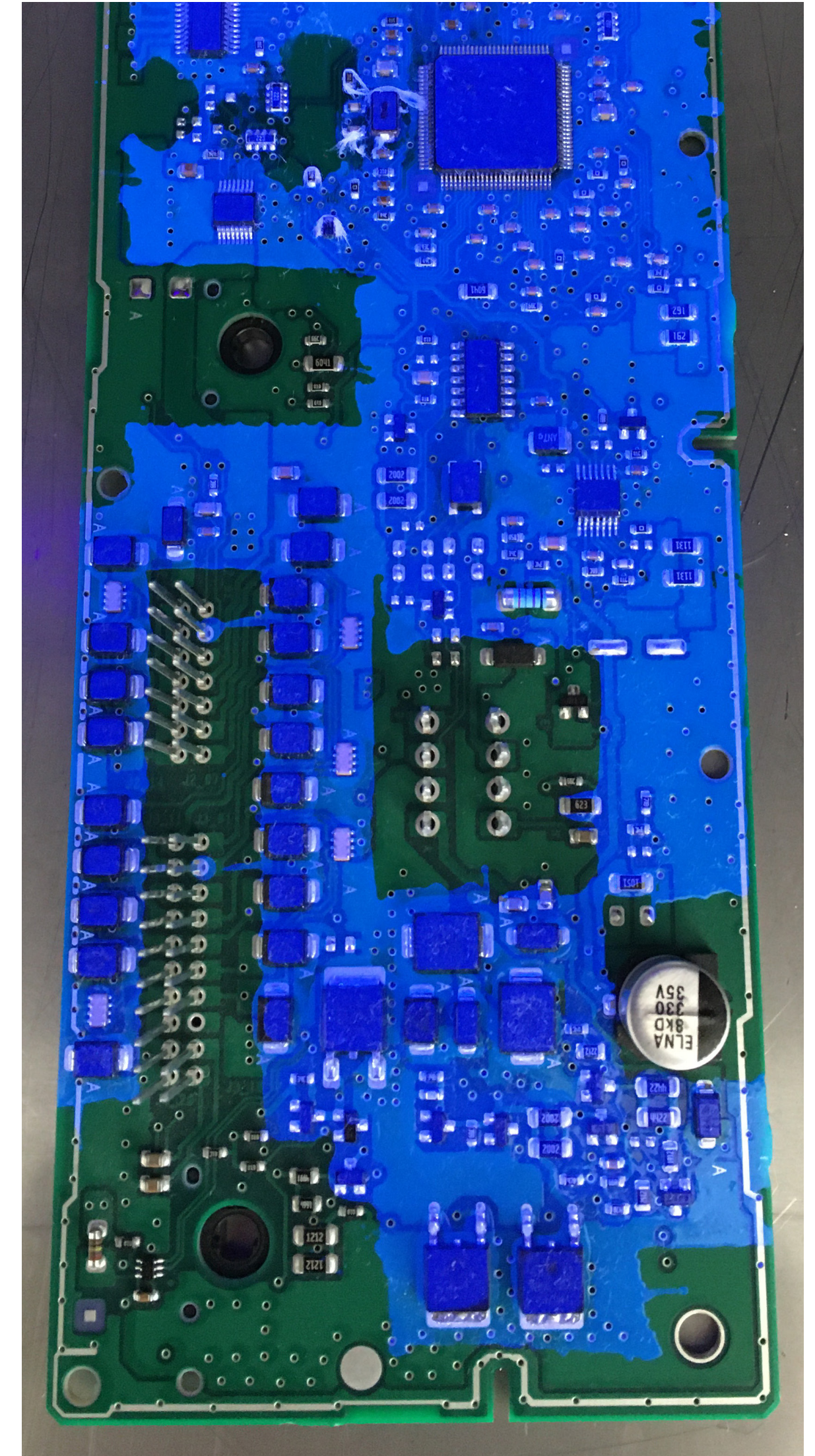
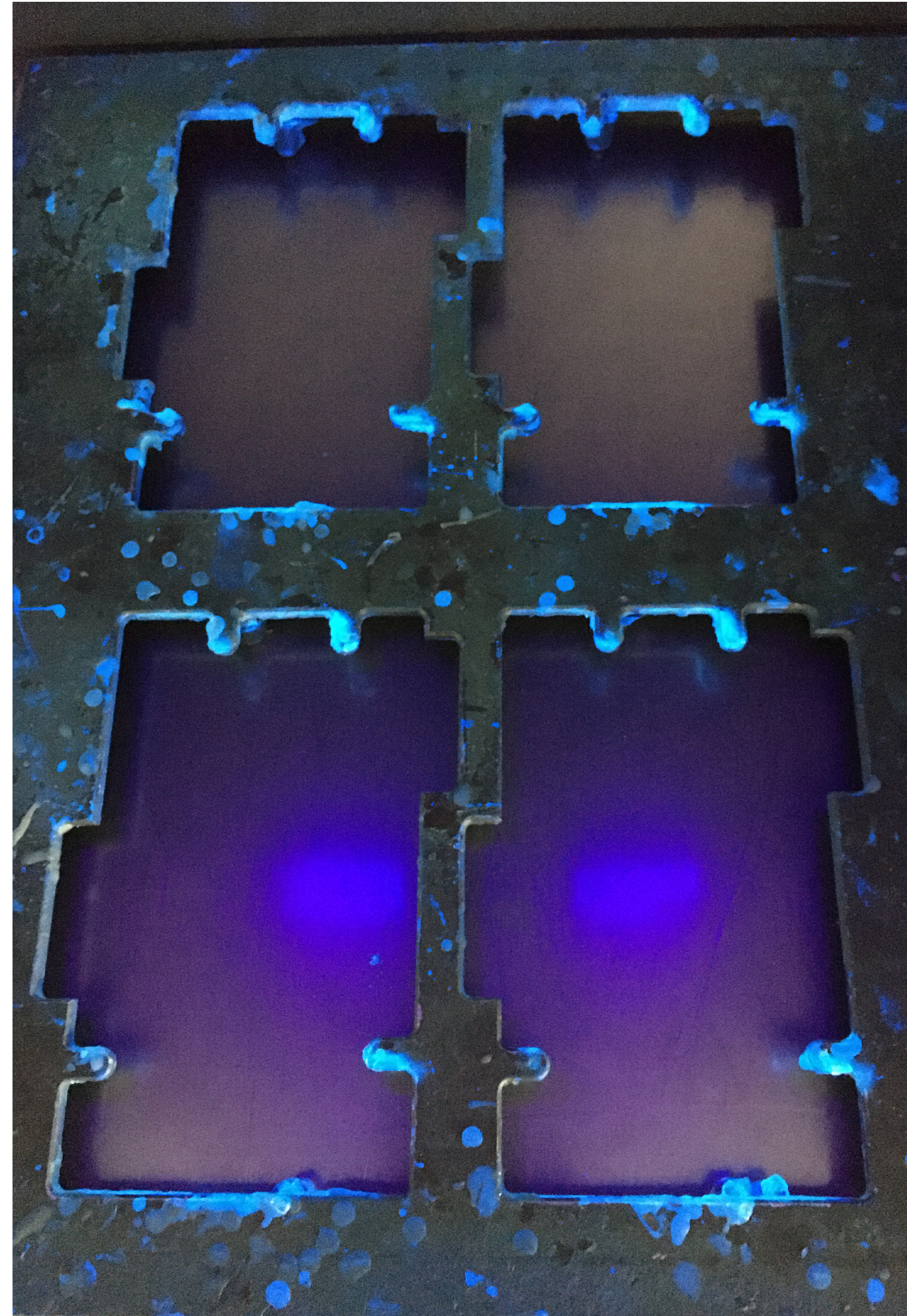
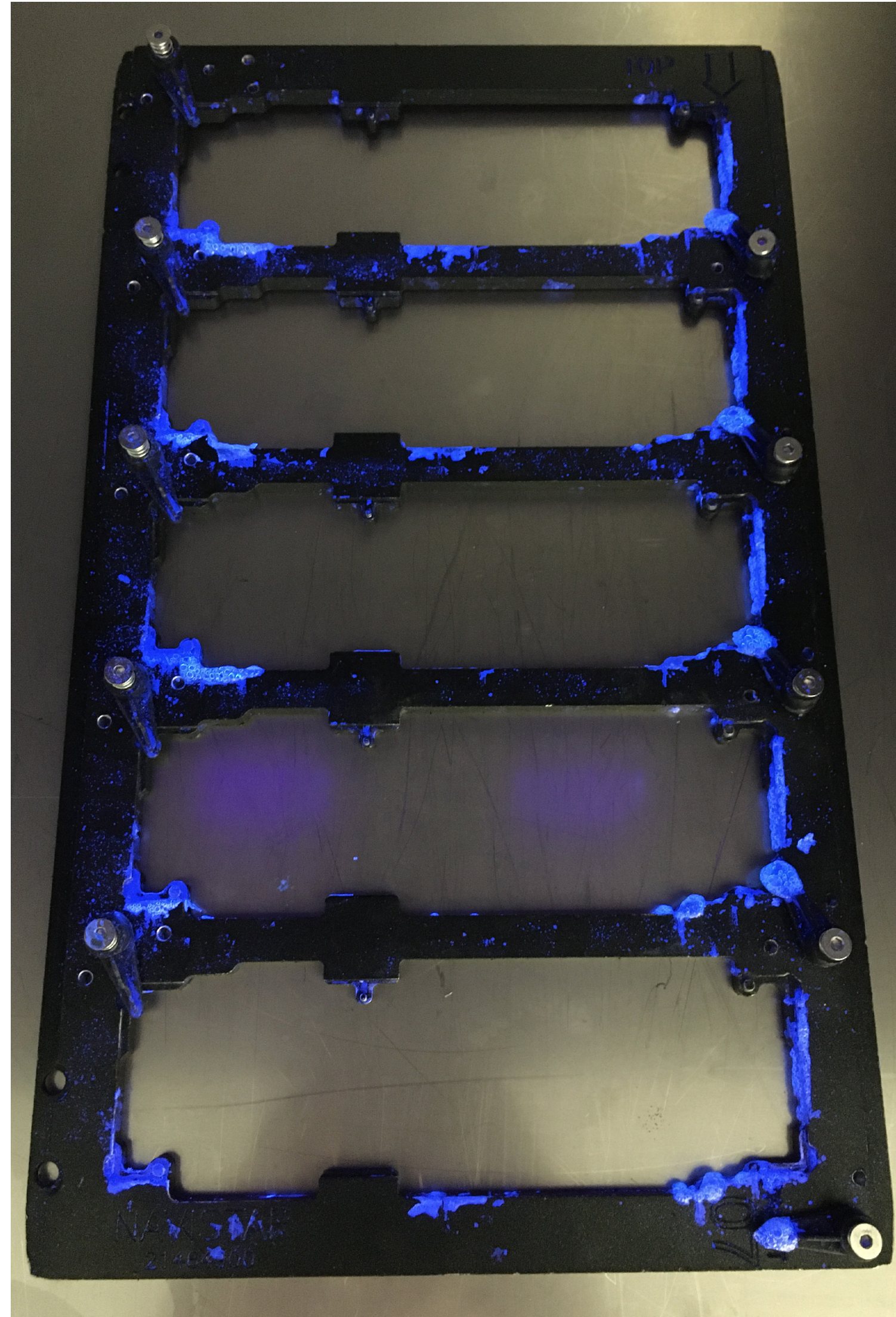
1 piece of coated PCBA

2 pieces of different coating frames

Type of Coating:

Peters ELPEGUARD® SL 1307 FLZ

Components Before Cleaning





COMPLETE CLEANING SOLUTION BY DCT

Alcohol-based cleaning agent
Proton[®] 537



Technical data sheet

Cleaning system **InJet[®] 888 CRD**
with technology of horizontal
high-pressure Spray-In-Air



Technical data sheet



see our videoreport



RECOMMENDED CLEANING PROCESS

Cleaning: Proton® 537
5–150 min / 45°C

PCBA: 5–10 min

Small frame: 15 min

Large frame: 150 min

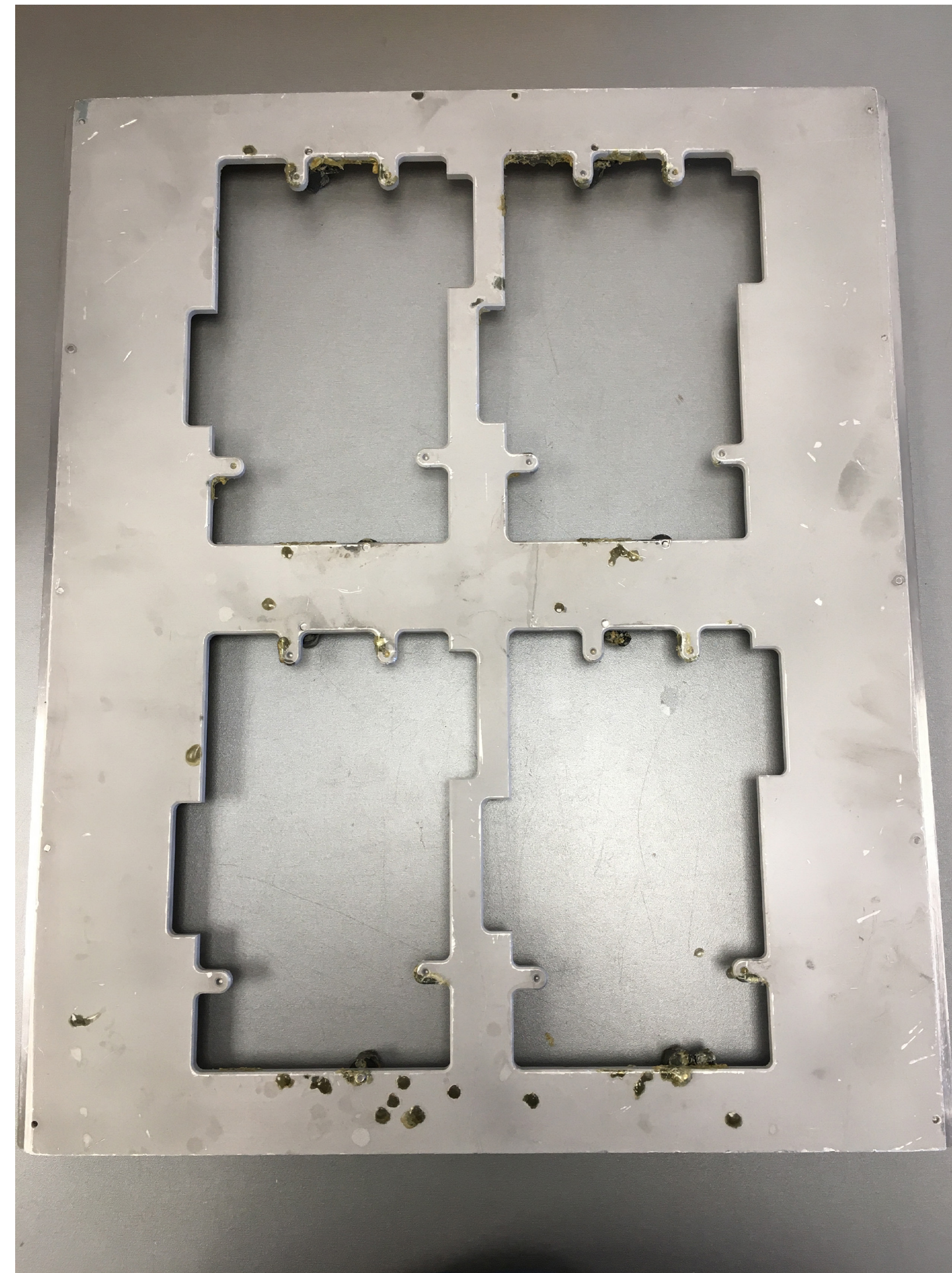
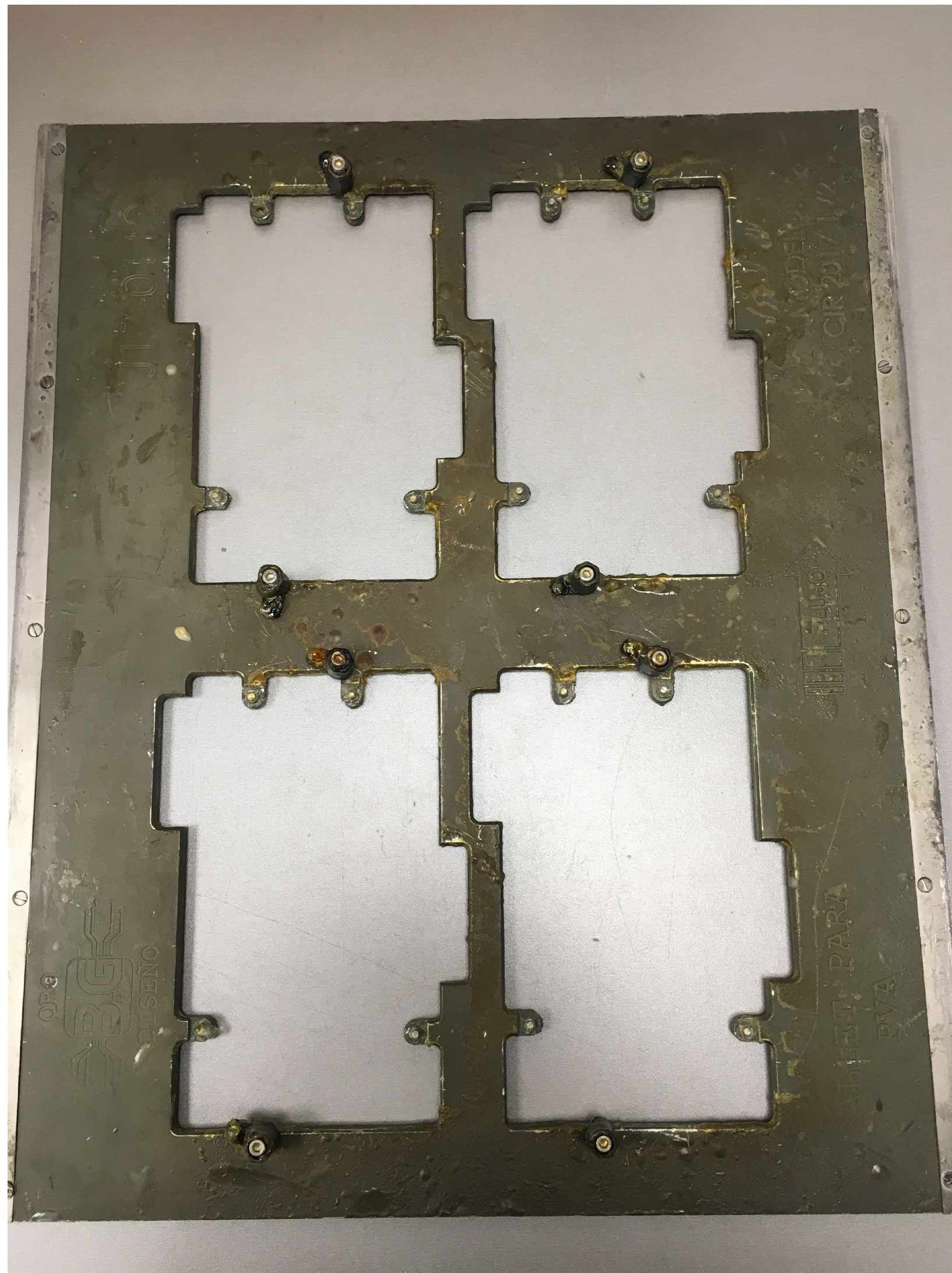
Rinsing: DI Water / 5 min / 35°C

Drying: hot air / 10 min / 80°C

BEFORE Cleaning



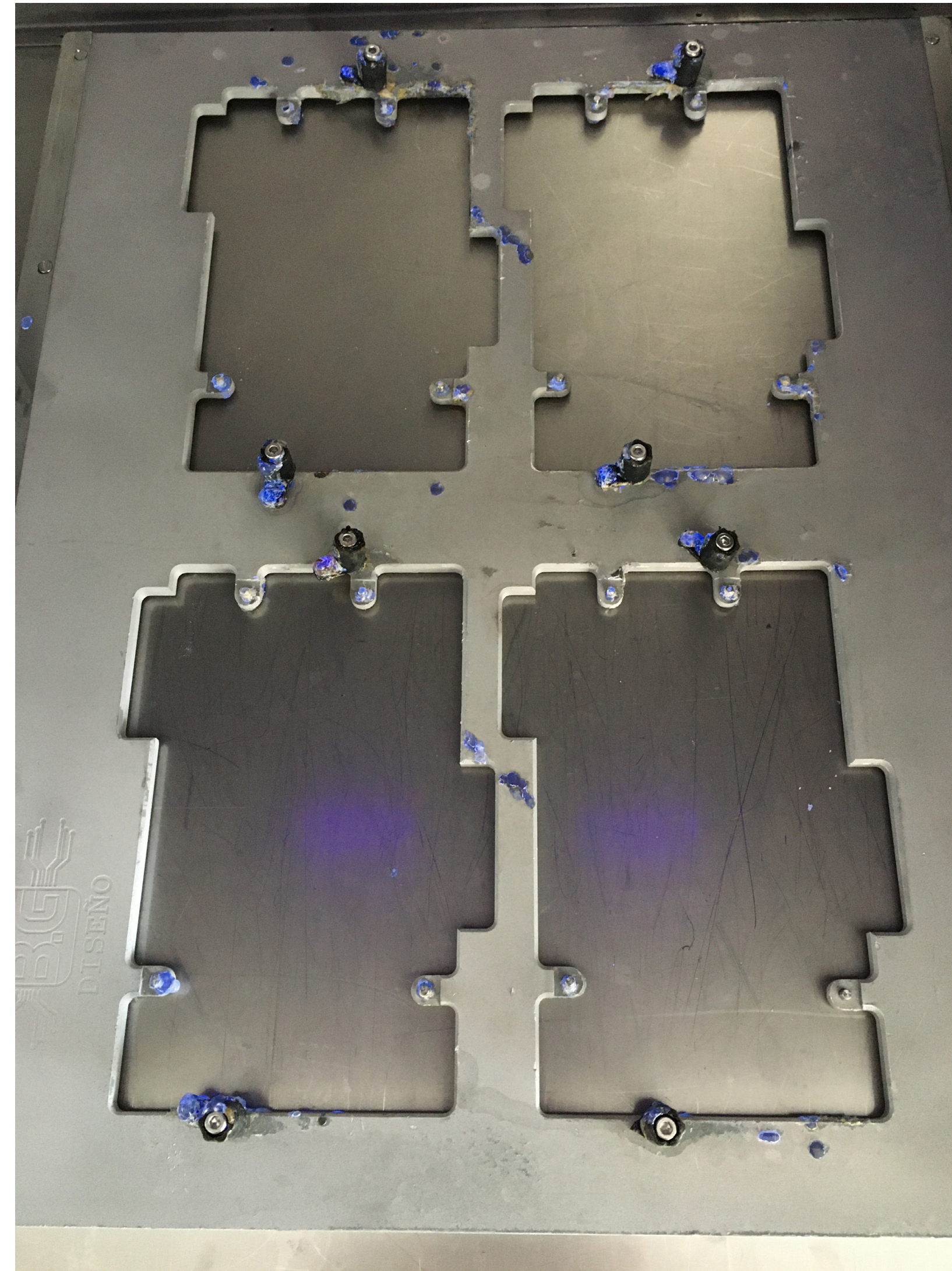
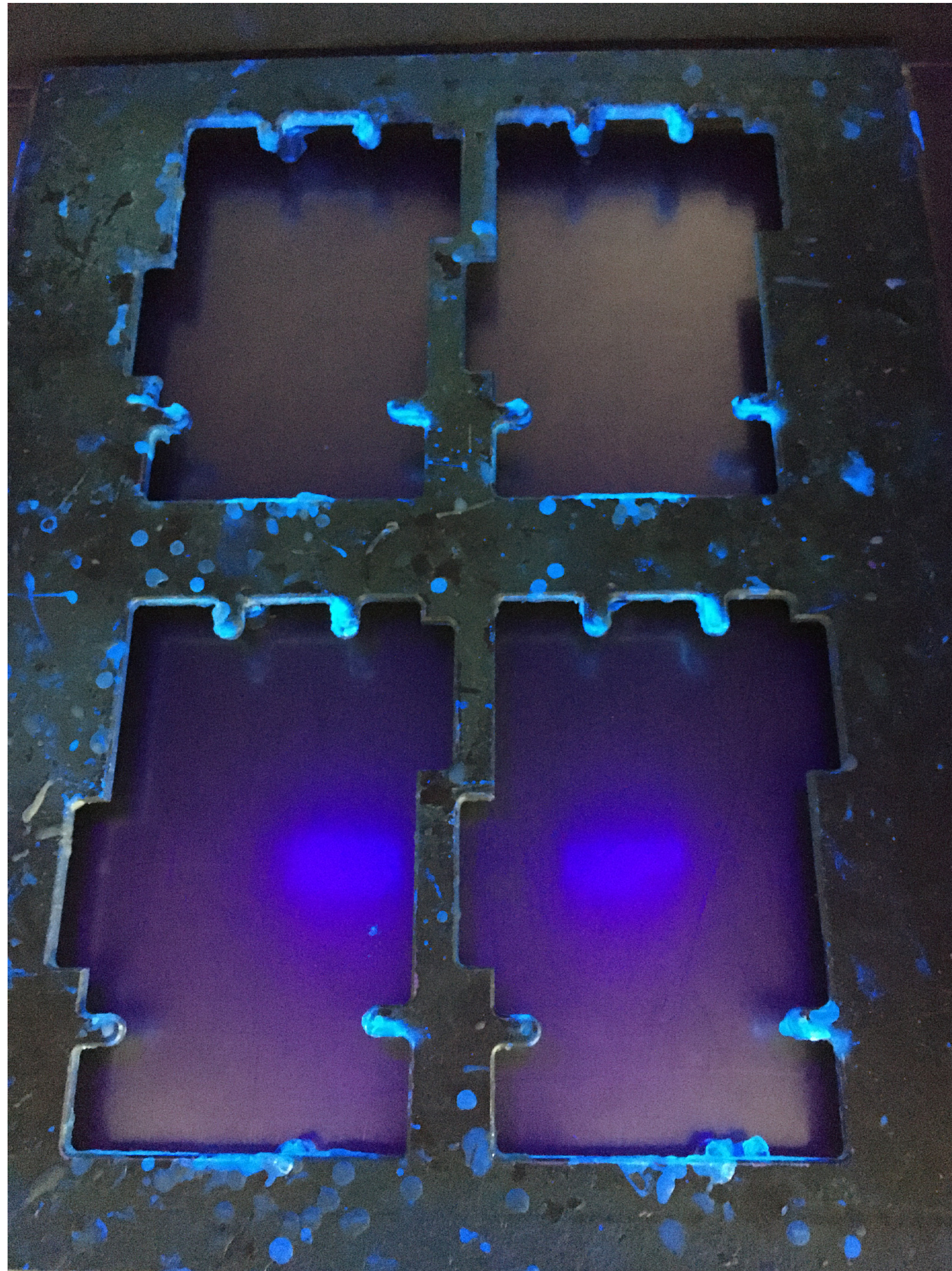
AFTER Cleaning



BEFORE Cleaning



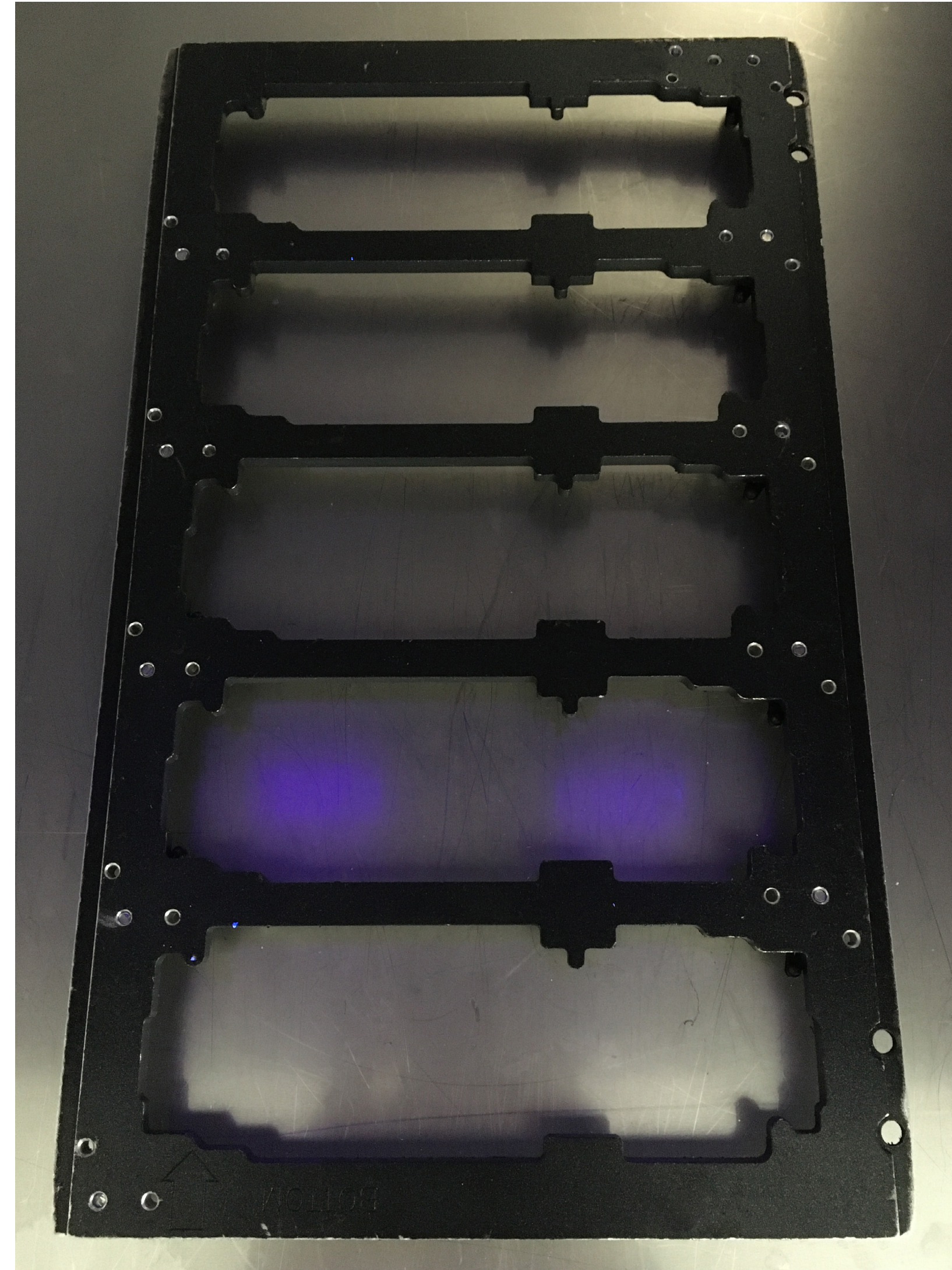
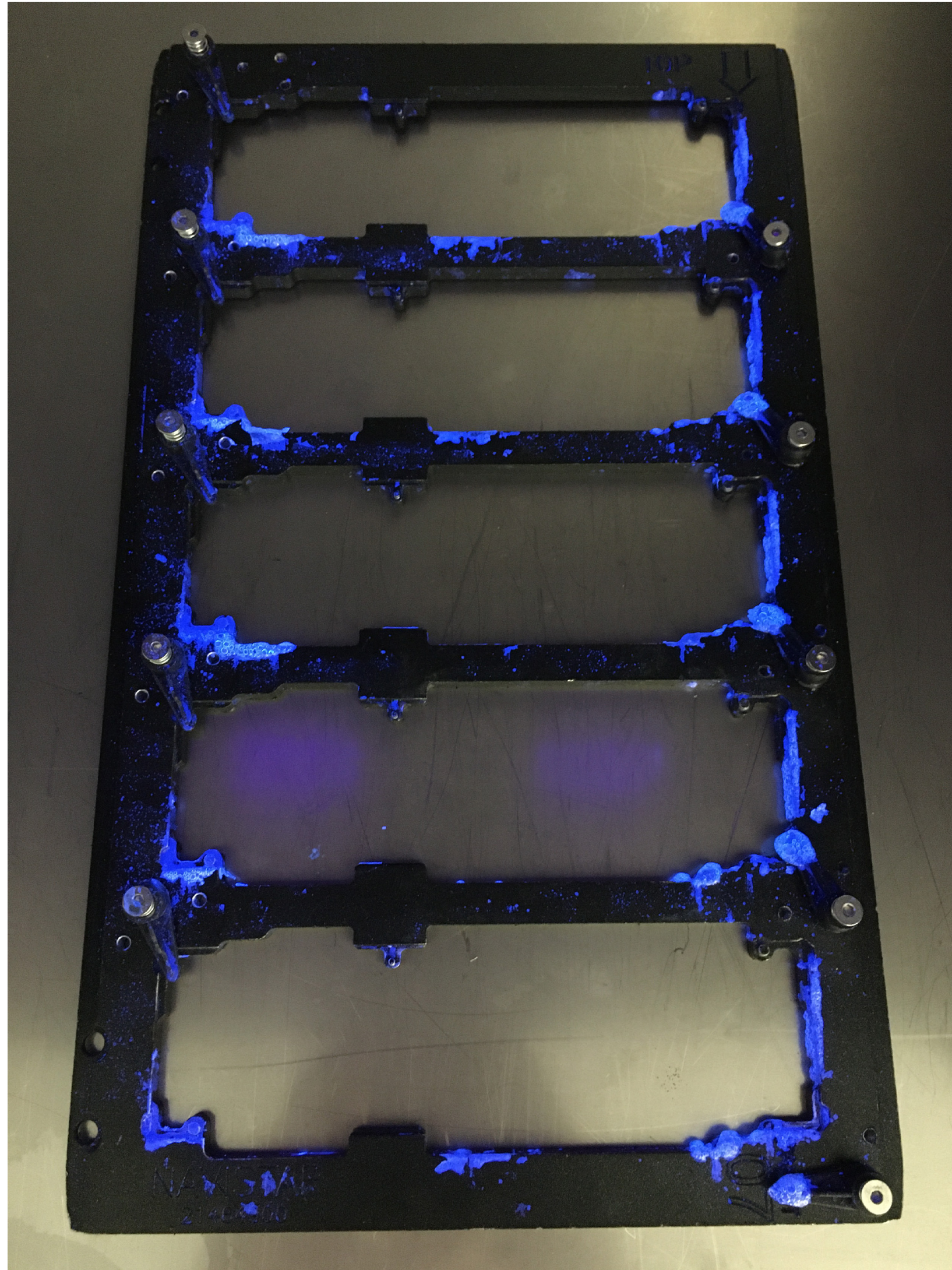
AFTER Cleaning



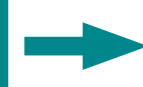
BEFORE Cleaning



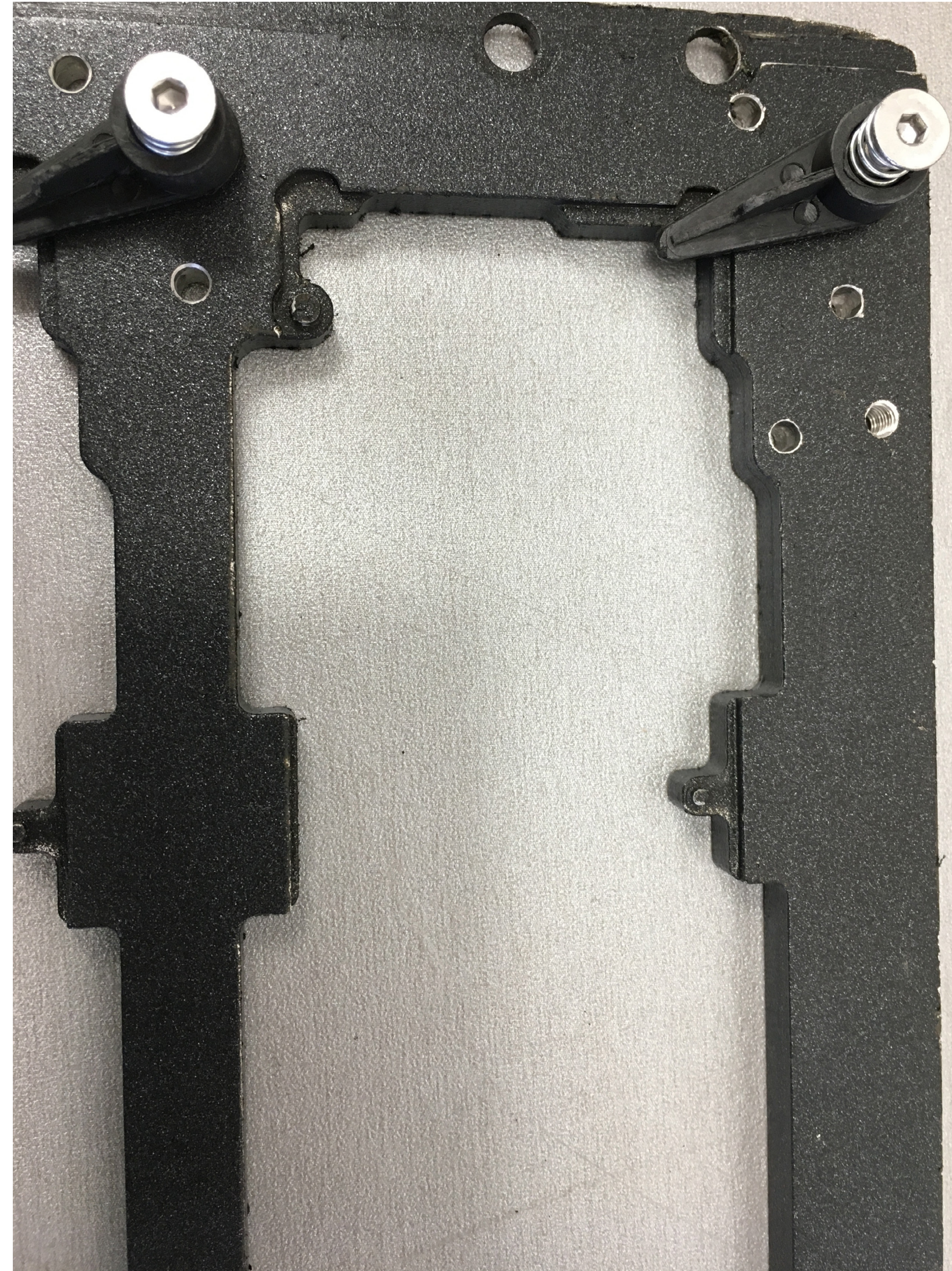
AFTER Cleaning



BEFORE Cleaning



AFTER Cleaning





RECOMMENDED CLEANING AGENT



Proton[®] 537

Technical data sheet



- ✓ Alcohol-based cleaning fluid
- ✓ Our strongest solvent
- ✓ Developed especially for polyurethane coatings



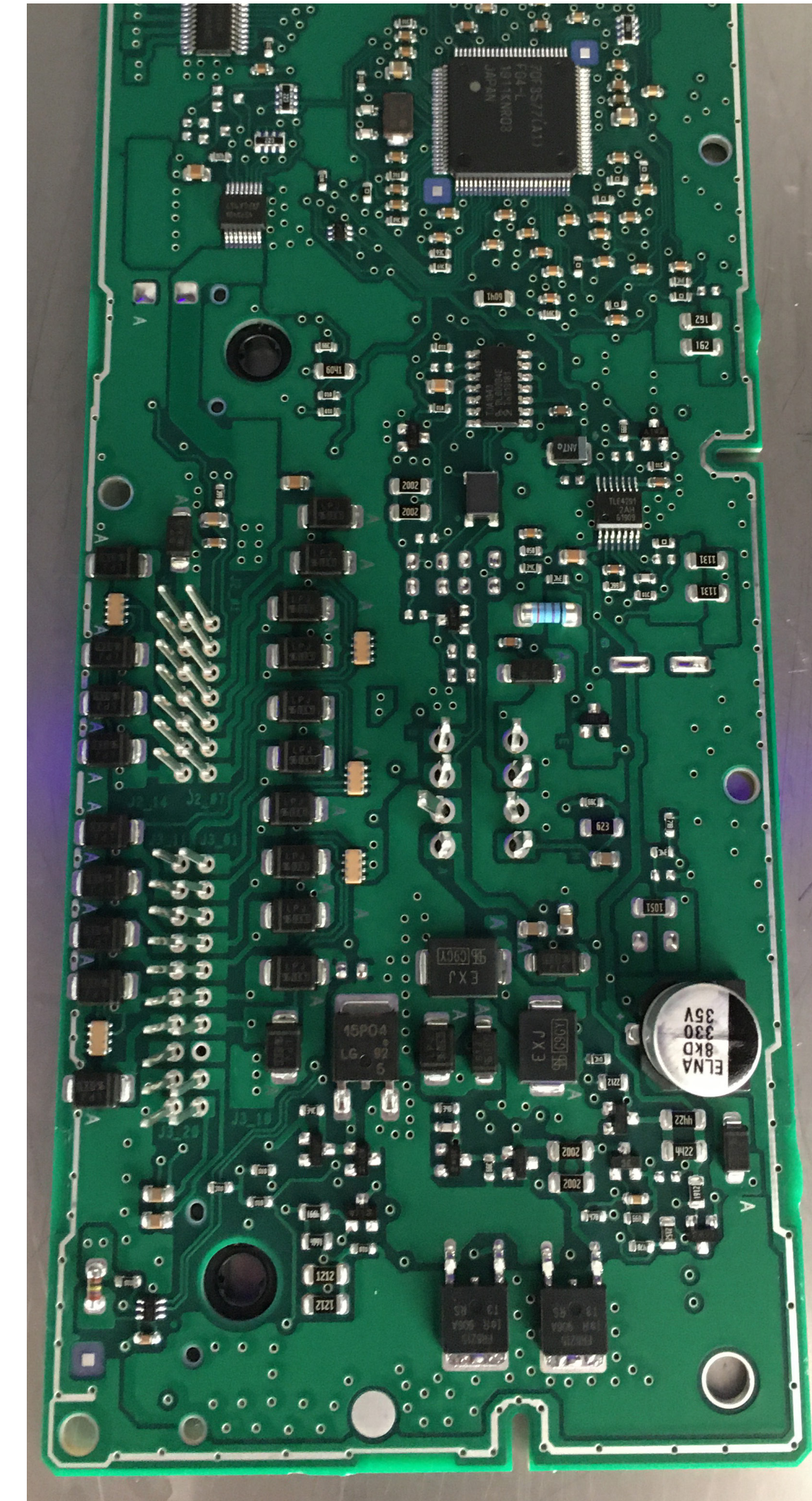
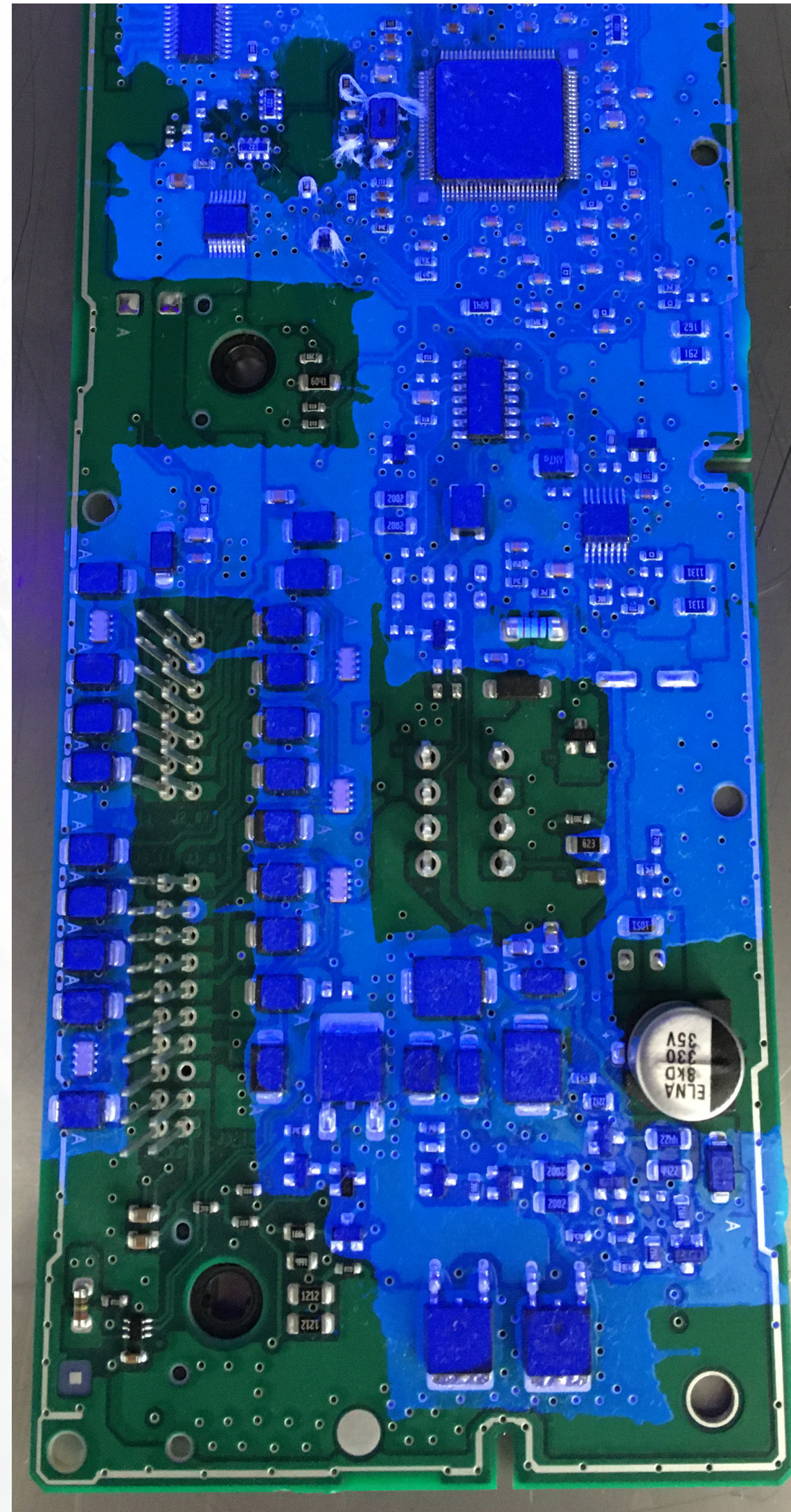
*For the cleaning of a large aluminum frame in a situation when the conformal coating is very durable, **we recommend Proton[®] 537**. In our test, the majority of contamination was removed after 150 minutes.*



*To clean PCBA with the usage of **Proton® 537** lasts only **5-10 minutes** and to clean a smaller coating frame takes **15 minutes!** The process is incredibly fast.*

BEFORE Cleaning →

AFTER Cleaning





RECOMMENDED CLEANING SYSTEM



Technical data sheet



see our videoreport

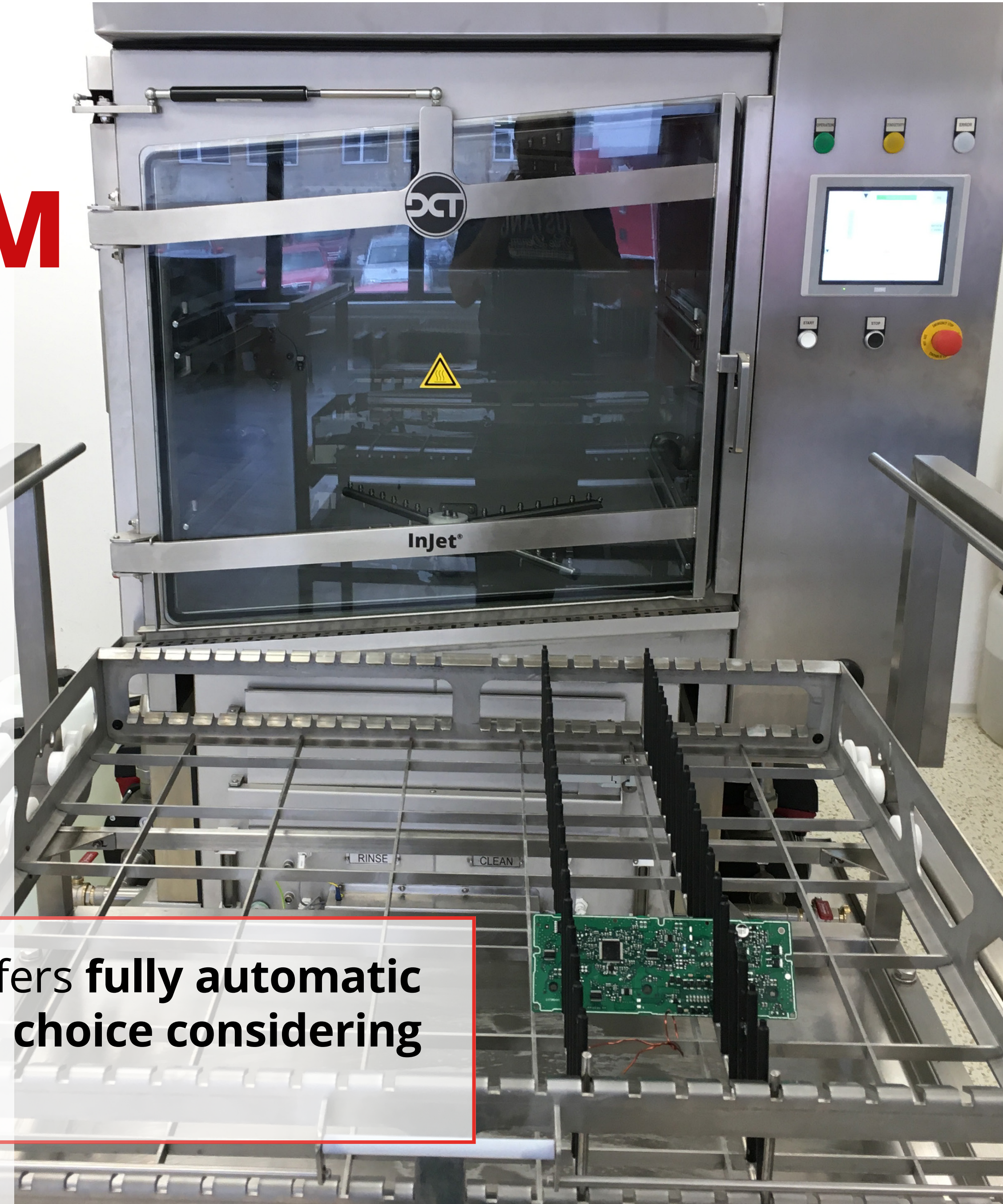
InJet® 888 CRD

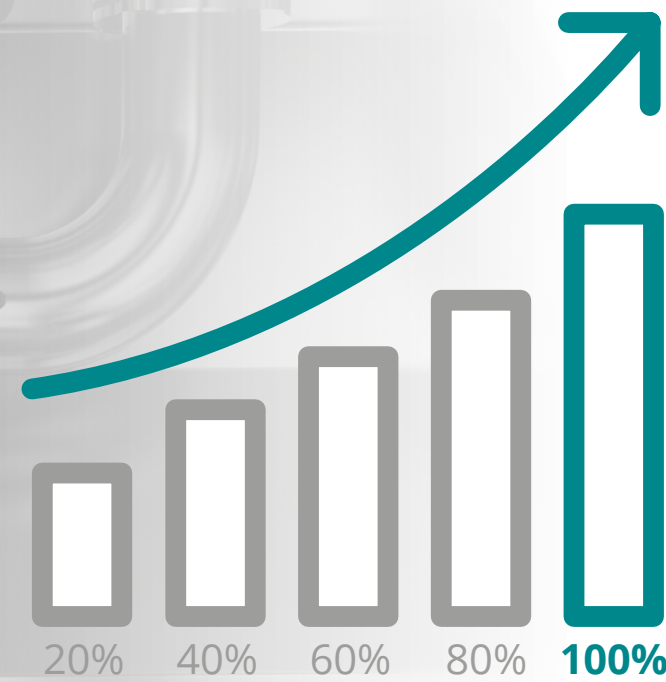
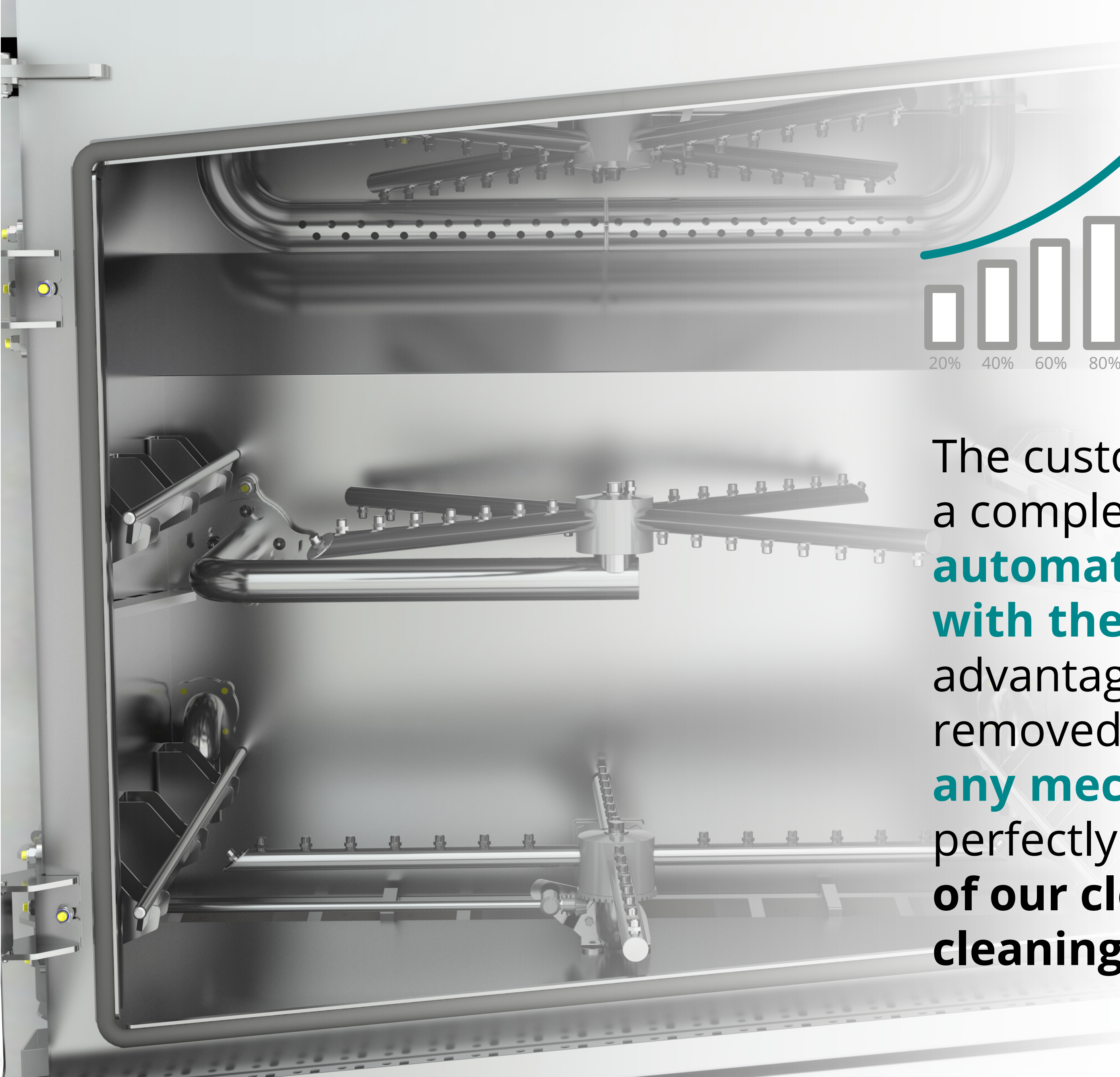
with horizontal high-pressure
Spray-In-Air.

- ★★★ **REFLOW** and **SOLDERING PARTS** cleaning
- ★★ **CONFORMAL COATING** removing
- ★★ **PCB** cleaning
- ★ **STENCIL, MISPRINT, SQUEEGEE** cleaning



Spray-In-Air cleaning machine offers **fully automatic closed process**, so it is **the best choice considering the safety of the operator**.





RESULTS OF TESTING

Success rate: 100%

The customer was excited we found a complete cleaning solution, which is **fully automatic, so the operator is not in contact with the chemistry.** However, the biggest advantage is that the conformal coating is removed from the coating frames **without any mechanical force**, the components are perfectly cleaned only due to a **combination of our cleaning agent Proton[®] 537 and our cleaning system InJet[®] 888 CRD.**