

Corrosion damages on car bodies and how Die Blaster® can be successfully applied

Paint system

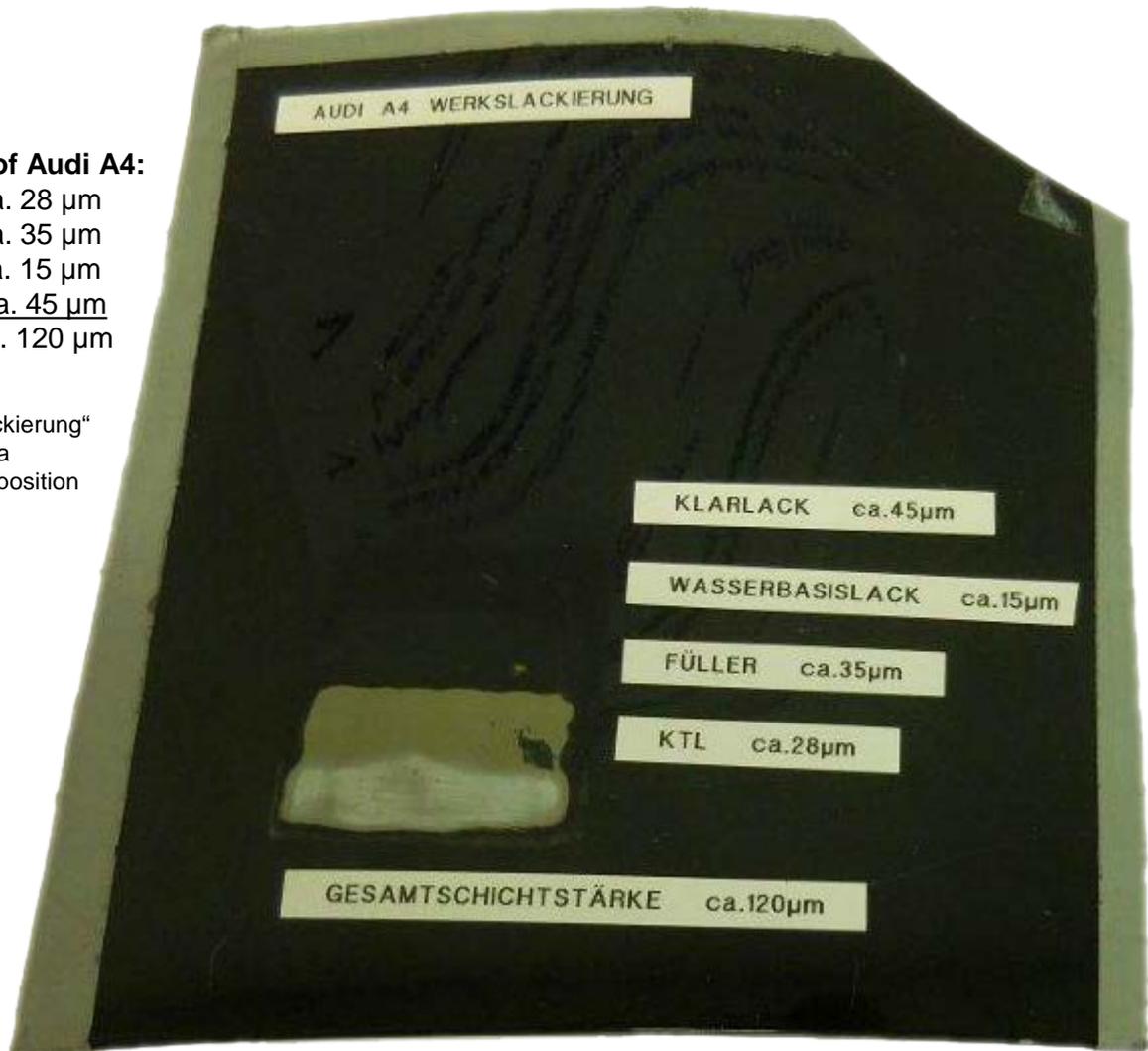
The main purpose of the paint system is to protect the car body from corrosion

Sample:

Original paint system of Audi A4:

KTL*	ca. 28 µm
Filler	ca. 35 µm
Water-based paint:	ca. 15 µm
<u>Clear varnish:</u>	<u>ca. 45 µm</u>
Total layer thickness:	ca. 120 µm

* KTL: "Kathodische Tauchlackierung" = cathodic electrodeposition, a process of Electrophoretic deposition (EPD)



1. Pre-treatment

The car body sheet is sprayed with (and/or dipped into) different phosphate solutions

2. Primer

KTL („Kathodische Tauchlackierung“ =cathodic electrodeposition / electrocoating) as corrosion protection. Standard procedure to prevent the car body metal sheets from corroding; layer thickness approx. 28 µm.

3. Filler (leveler)

The filler is to compensate irregularities or unevenness on the base metal; as leveler to get a smoother surface. thickness approx. 35 µm

4. Water-based paint

The coat provides the visual properties of color and effects. thickness approx. 15 µm

5. Clearcoat / Clear varnish

The final layer. Glossy or transparent coating. Must be durable to resist abrasion and chemicals. thickness approx. 45 µm

Paint system (Repair)

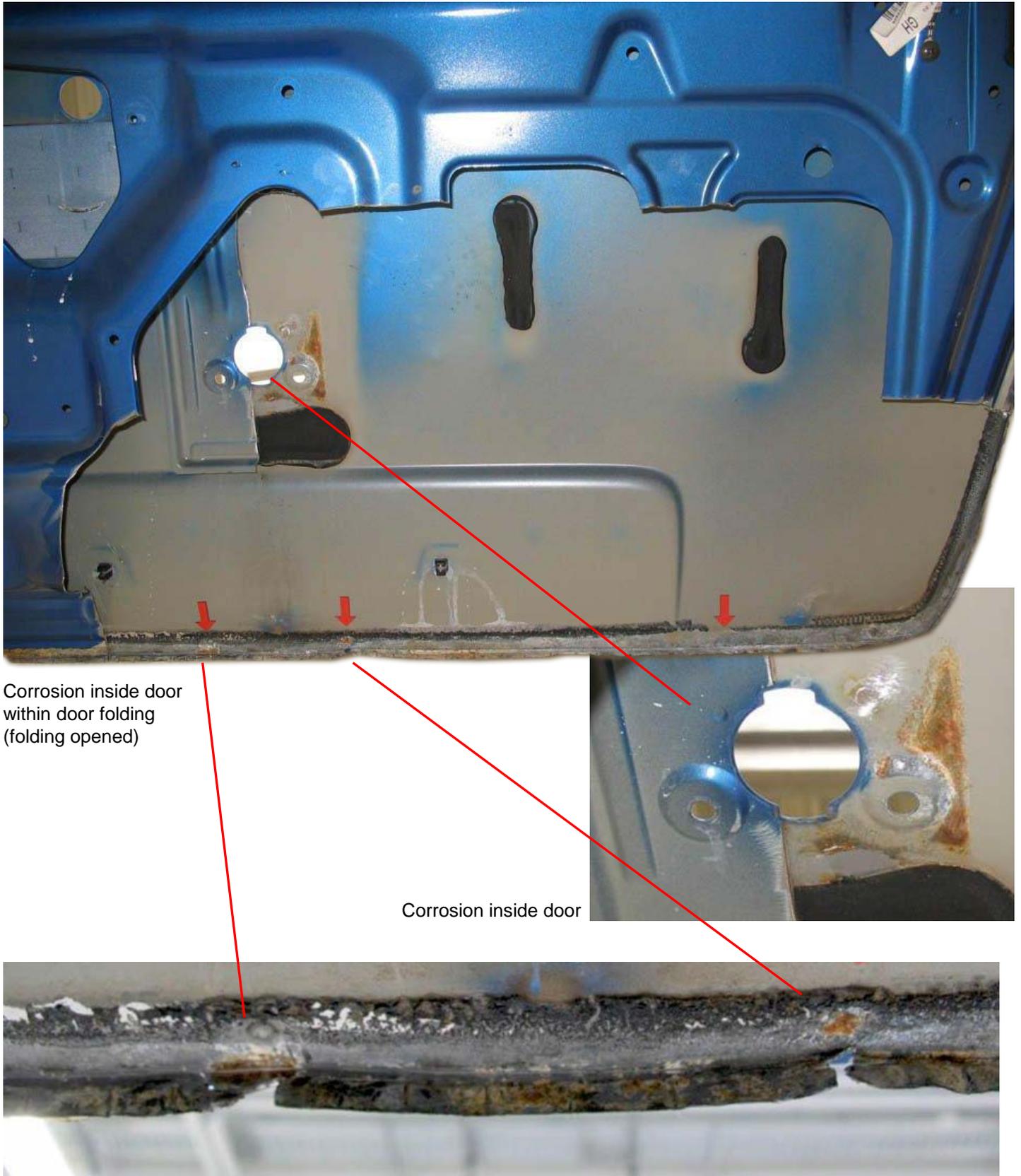


Repair paint system:

- MIG (Metall-Inertgas) soldered seam
- Surfacer
- Reaktiv Primer
- Vario Filler
- Coloured filler
- + final coating

Typical damages

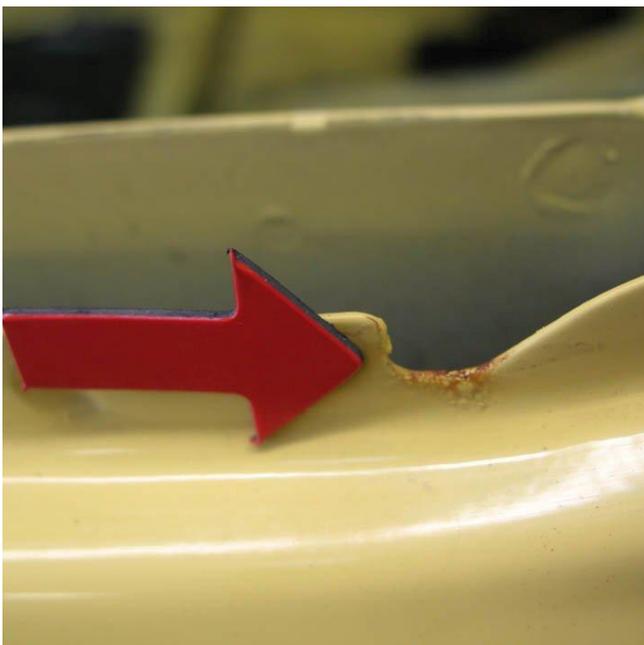
typical corrosion damages on car body sheets.



Typical damages

typical corrosion damages on car body sheets.

Corrosion usually happens first on areas where moisture appears or water remains (where it cannot drain off or evaporate). And on areas where the coating layer is thin (e.g. on edges).



Typical damages

typical corrosion damages on car body sheets.

Hatchback / Luggage compartment lid:



Typical damages

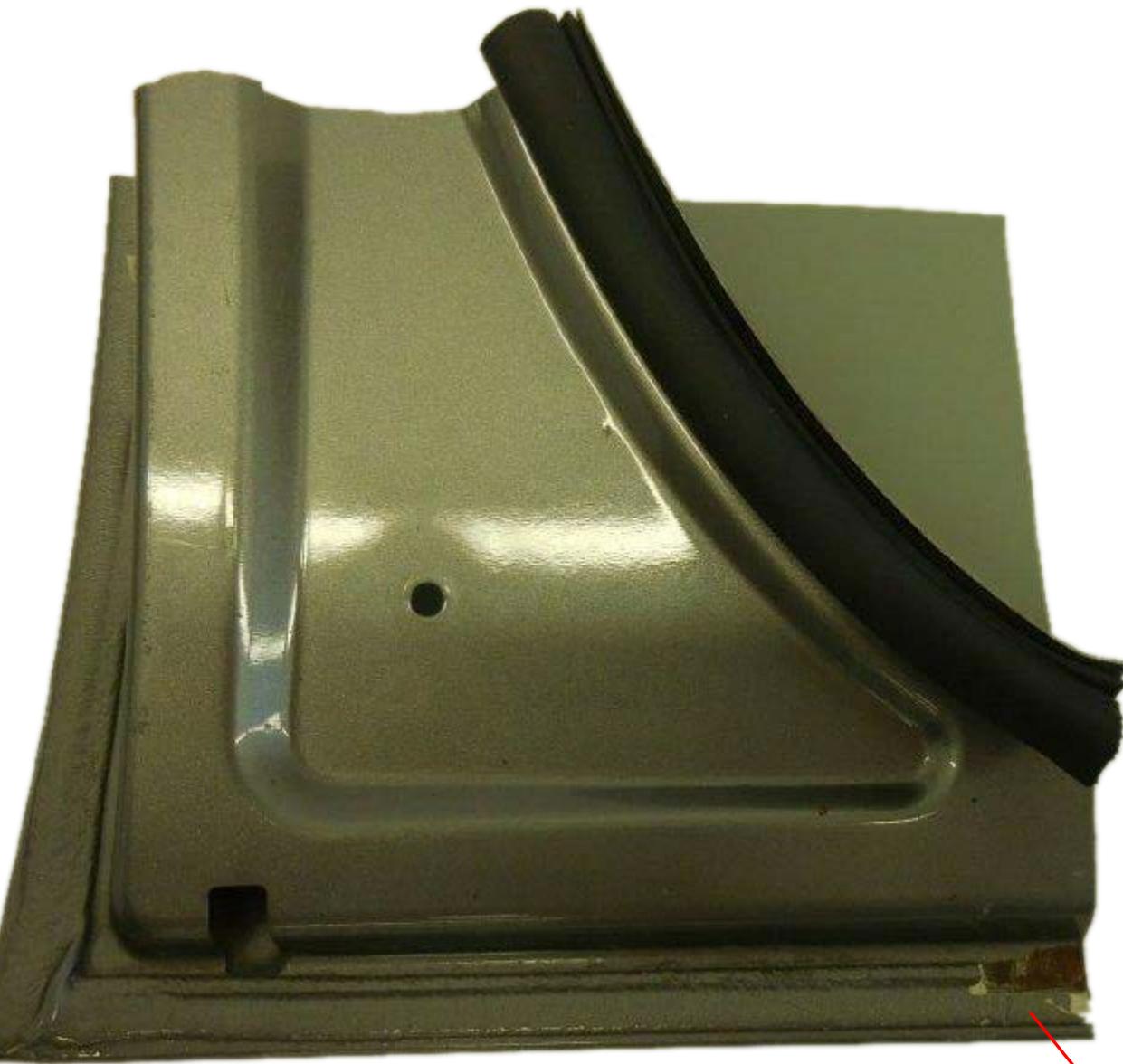
Typical corrosion damages on car body sheets.

Here: within and near door foldings



Typical damages

Here: damaged seam sealer at door folding

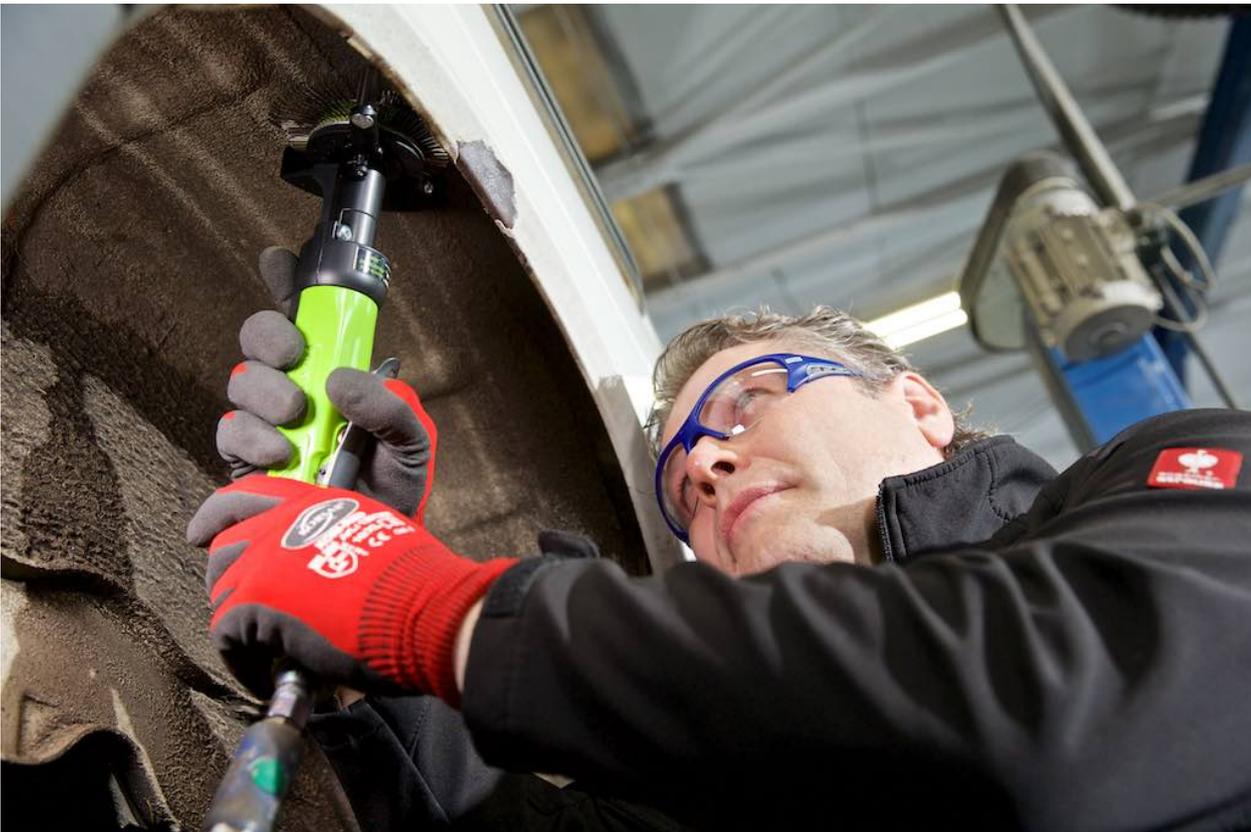


Typical damages

Here: corrosion and missing paint around door folding
(on left side already partly prepared with Die Blaster®)



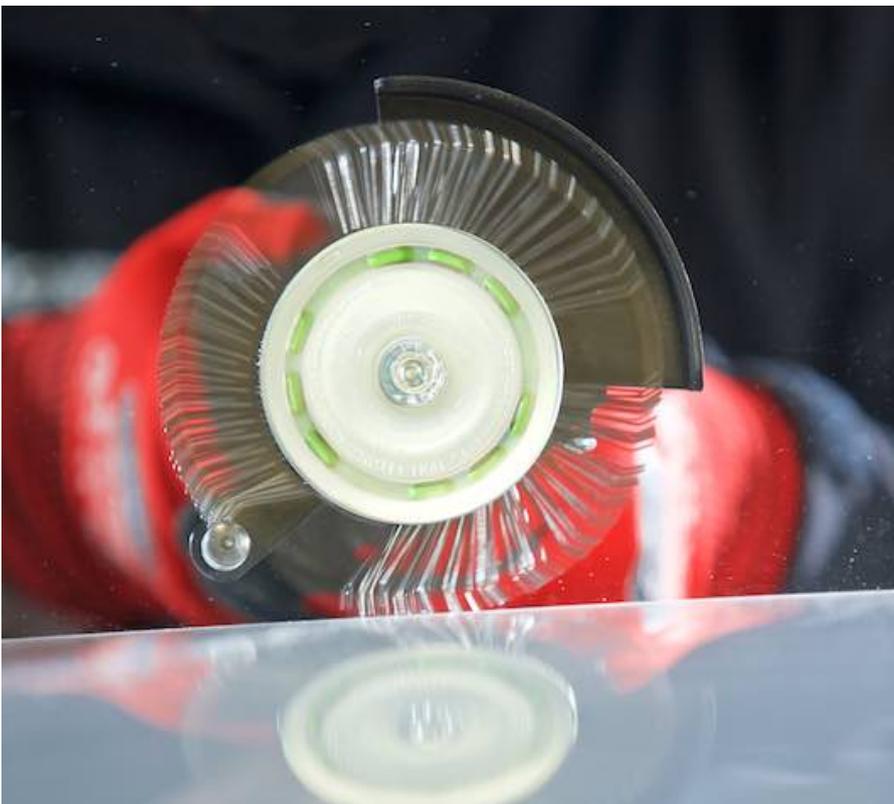
Typical applications for Die Blaster®: Wheel case



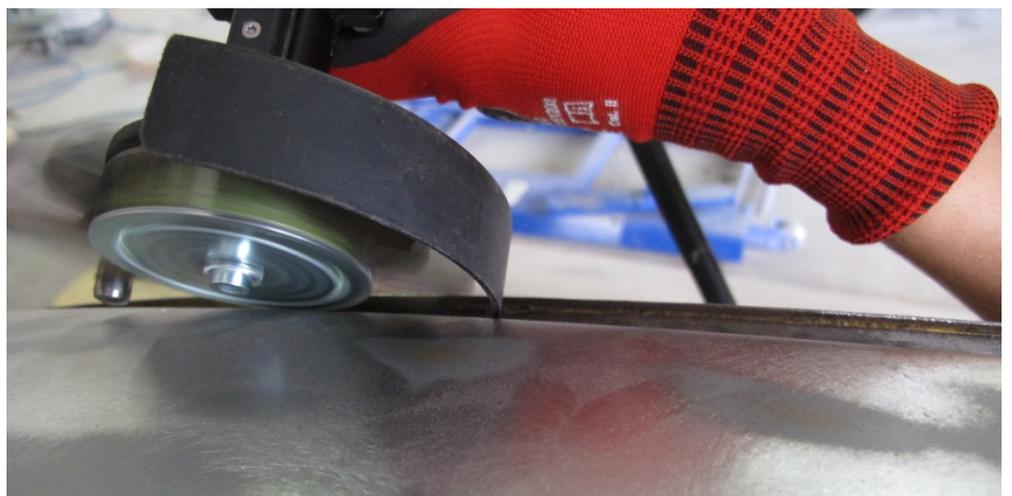
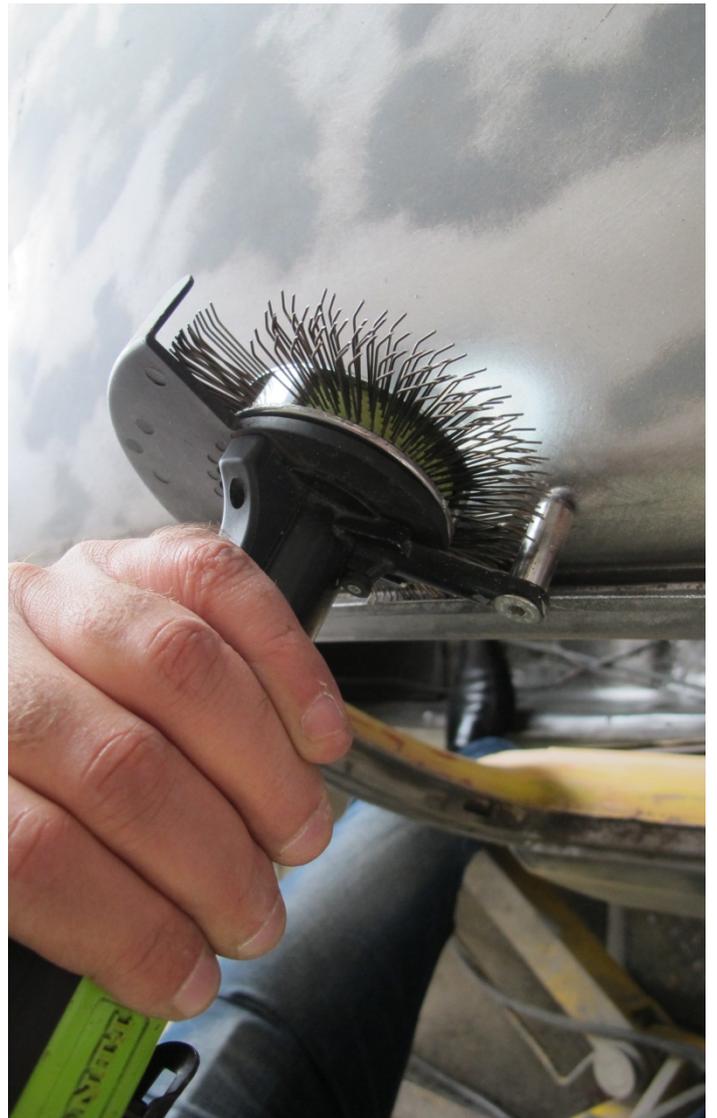
Typical applications for Die Blaster®: Wheel case



Typical applications for Die Blaster®: Roof Joint



Typical applications for Die Blaster®: Roof Joint



Typical applications for Die Blaster®: Door Rabbet / Door Folding



Typical applications for Die Blaster®: Door Rabbet / Door Folding



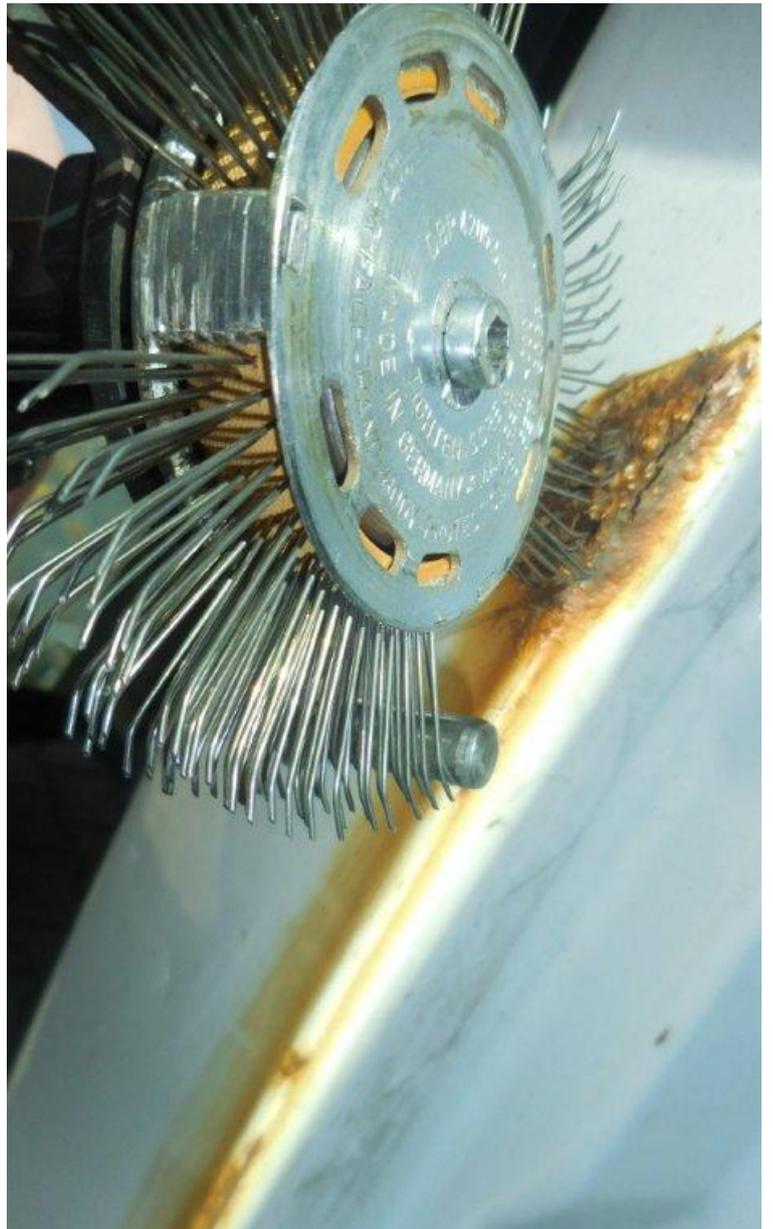
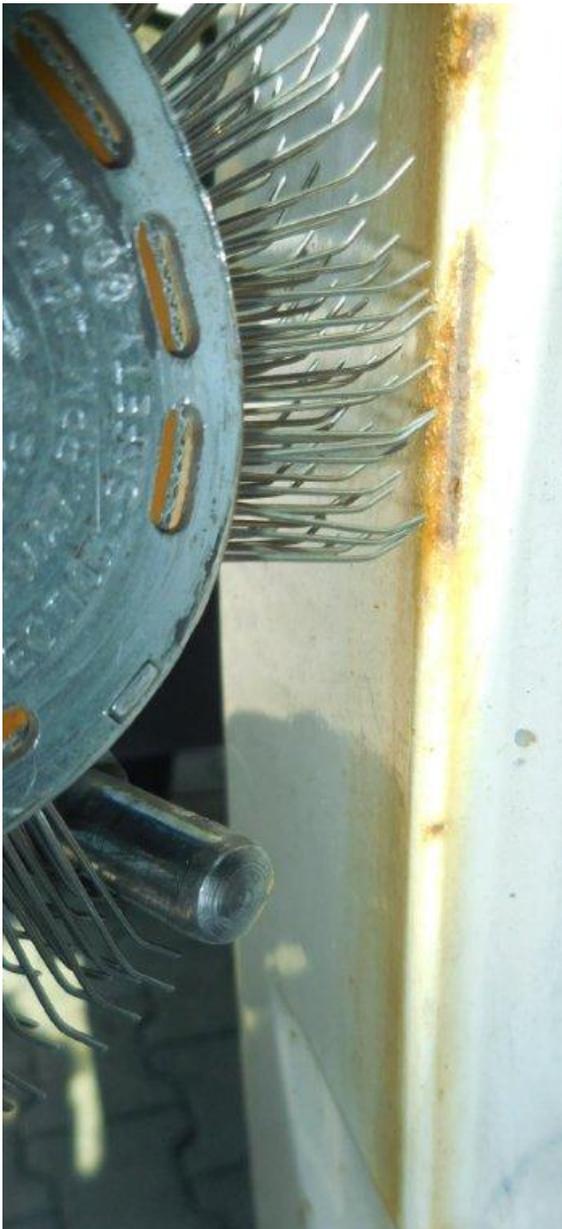
Typical applications for Die Blaster® Hatchback / Luggage compartment lid:

Corrosion removal with Die Blaster® Belt 11mm left (or Bristle Blaster® Belt 11mm left)



Typical applications for Die Blaster®

corrosion removal with Die Blaster® Belt 11mm (or Bristle Blaster® Belt 11mm)



Die Blaster®: Other applications

Prospectively, **gluing** instead of **welding** becomes more and more common in car manufacturing.

This opens new chances and an even wider field for many new applications for the Die Blaster® - that means for all applications where glue has to be removed and the surface to be prepared (roughened) to apply new gluing material.

The use of the Die Blaster is recommended here and provides the following advantages:

- Residues of glue can be removed efficiently (fast and without smearing)
- Die Blaster® can be applied pinpoint without affecting neighbouring areas that should be left intact
- Better adhesion of the applied material is on a surface treated with Die Blaster® (bond strengths at least 20% higher than on a surface prepared with sand paper)

