



TSA / Tooling Slovakia Automotive



ACTIVITIES

Project

CAO

MILLING

Assembly

Metrology



Where are we:

Bojnická 3
831 04 Bratislava
Slovakia

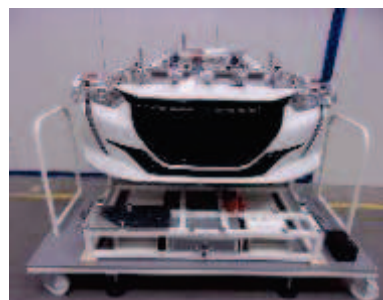
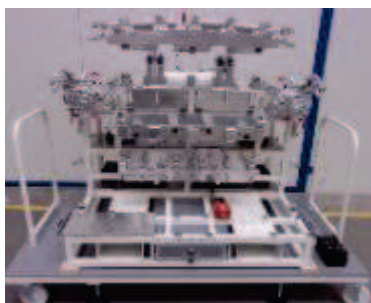
Created in 2002, TSA it is:

- ◆ 2500 m2 of facilities
- ◆ 42 employees
- ◆ Turnover of 3,5 mil €
- ◆ Certification of ISO 9001
- ◆ Certification of ISO 45001
- ◆ Silver Medal ECOVADIS 2024



ACTIVITIES

Design and production of tools and prototypes for the automotive industry

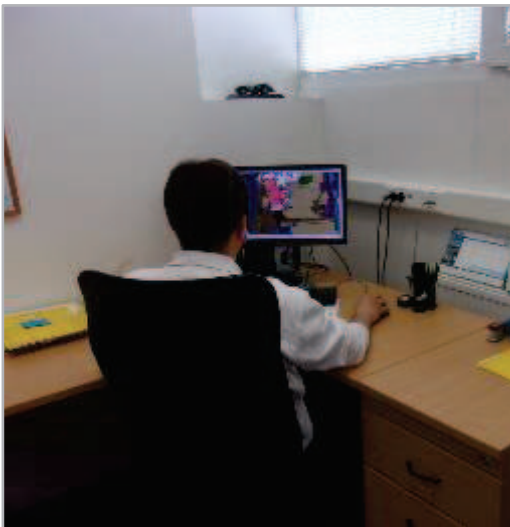
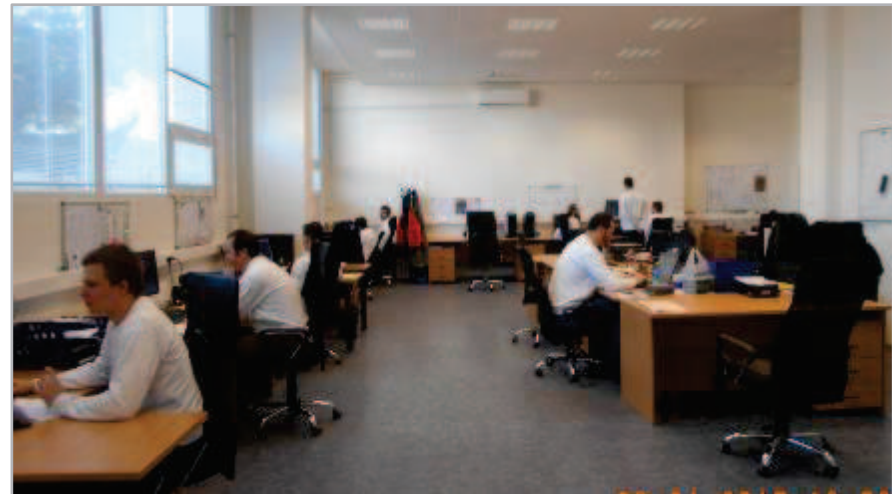


OUR CUSTOMERS



Project and Design

- ◆ 3 Project Managers (language: FR- ENG- Sk)
- ◆ 11 computers with CATIA V5
- ◆ 8 designers.
- ◆ Monthly capacity: 1300h



Manufacturing

- ◆ 1 milling machine HAAS
- ◆ 1 milling machine HAAS VF-5 (1260 x 660 x 400)
- ◆ 1 milling machine HAAS MIKRON VCE 1200 (1200 x 600 x 400)
- ◆ 1 milling machine HAAS MIKRON VF2
- ◆ 1 milling machine HAAS Automatic Lathe
- ◆ 1 milling machine LGB PF CNC 2310 (2300 x 1100 x 400)
- ◆ 1 milling machine CME BF-1 (1100 x 600 x 700)

Software for programation:

- ◆ WORKNC V18
- ◆ 6 classical milling machines
- ◆ 1 Lathe
- ◆ *Working time => 2 shifts– 6 technicians,
monthly capacity in milling machining => 2 500 h*

2 shifts in classic milling and assembly= (16 workers)

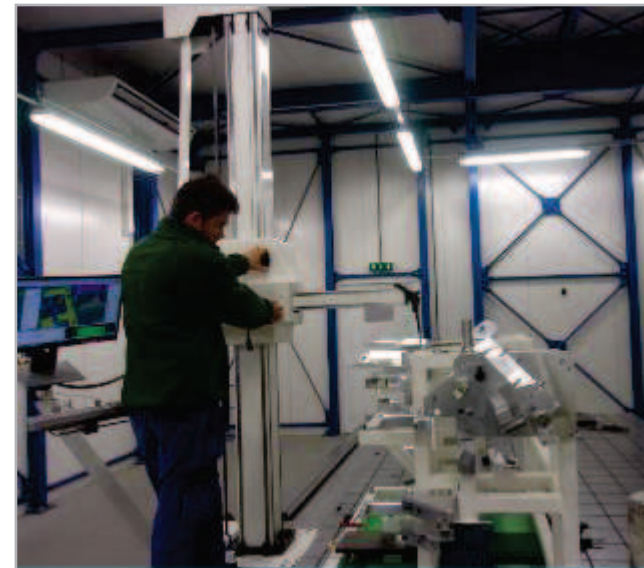


Metrology

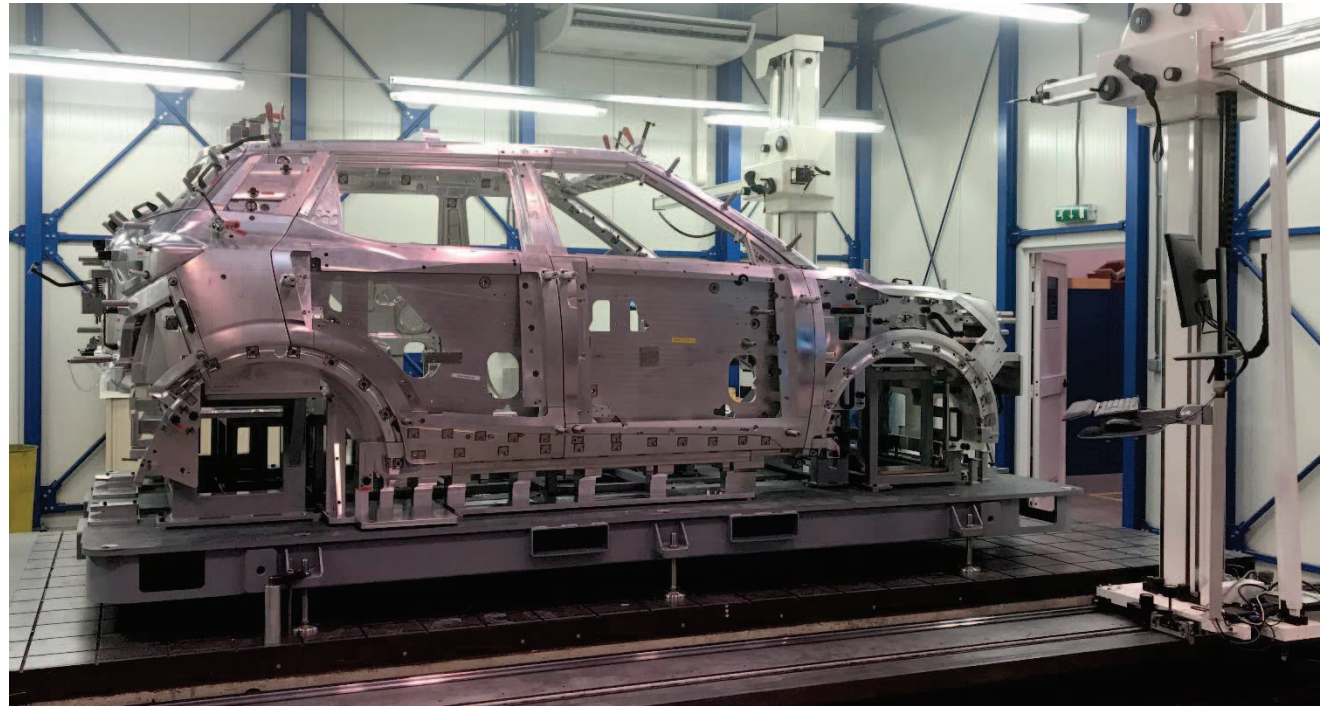
- ◆ DUPLEX 3D- machine bi-bras
(X=5900mm, Y=1500mm, Z=2000mm)
- ◆ POLI 3D-machine (X=2500, Y=1500,
Z=1500)
- ◆ TRIDAX 3D-machine (X=4000, Y=1500,
Z=2000)
- ◆ MFO 3D machine CN (X=2000, Y=1200,
Z=1400)
- ◆ Software: Metrolog and Polyworks

Organisation– 2/8 - 5 technicians.

Monthly capacity= 650 h



Examples of our realizations



Master Cubbing

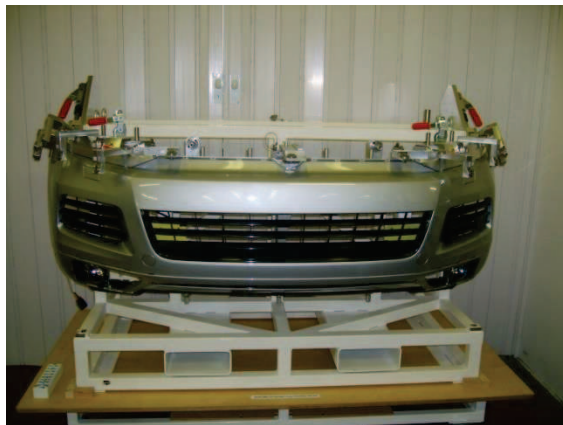
Examples of our realizations



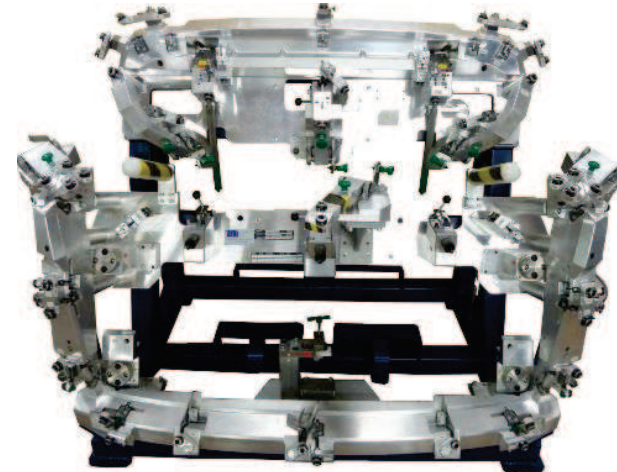
Front Cubbing



Rear Cubbing



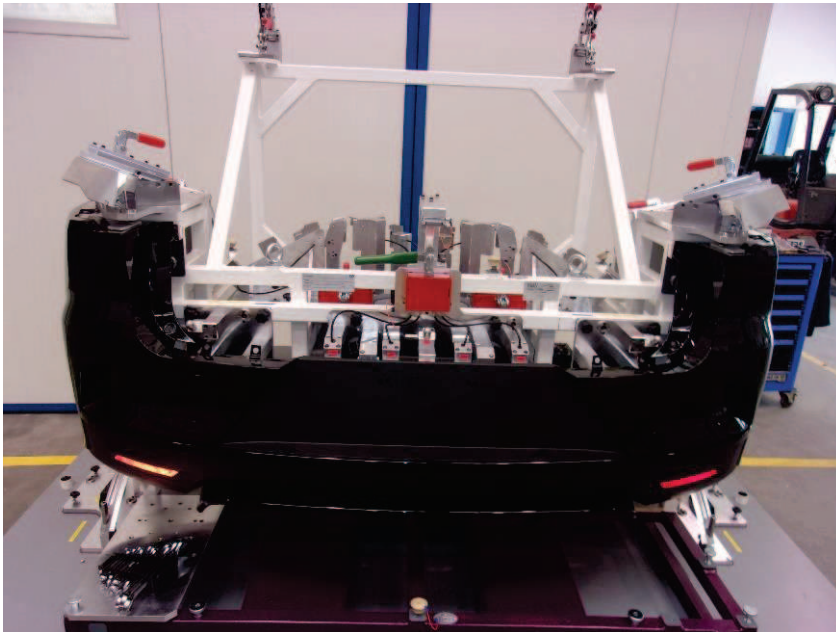
Bumpers Checking Fixtures



Tailgate Checking Fixture

Examples of our realizations

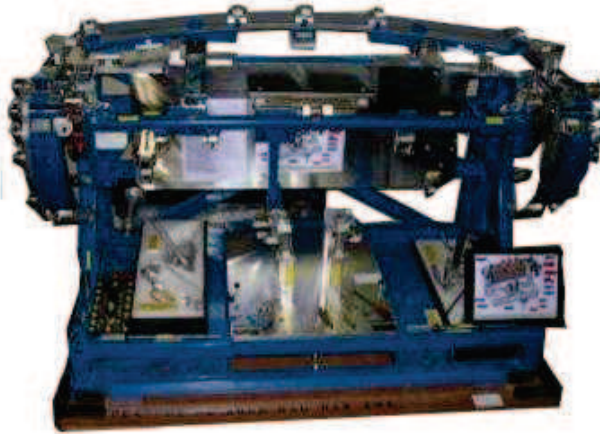
RR BUMPER



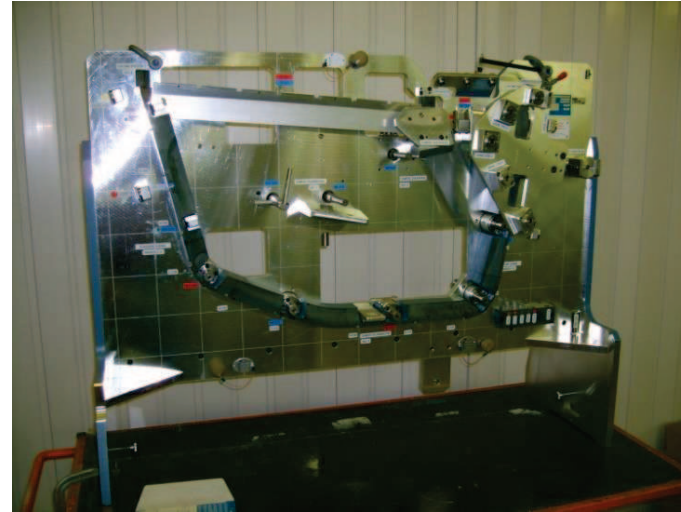
RR BUMPER with tailgate



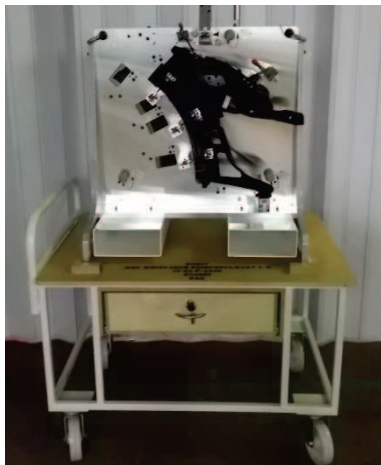
Examples of our realizations



Instrument Panel CF



Door Panel CF



Other CFs



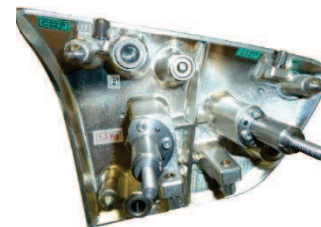
Examples of our realizations



Lateral Body in White Assembly tool



Rear lights cubbings

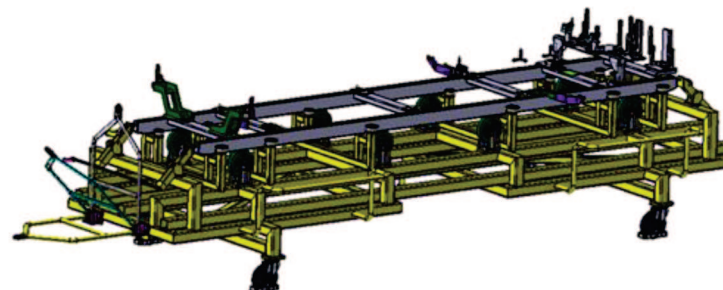


Small cubbings

Examples of our realizations



Chariot de Portes



Chariot Armature Caisse



Chariot Anneau AVT

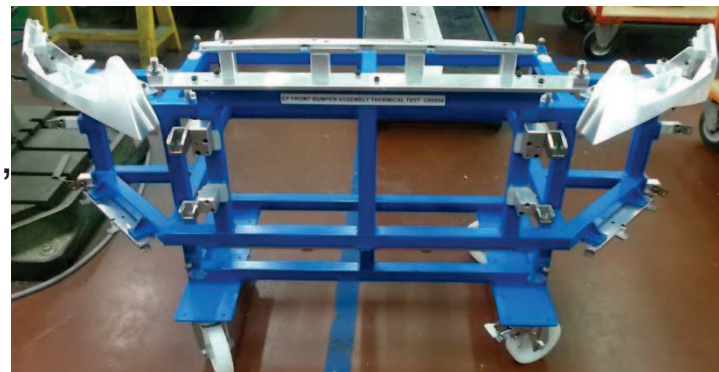


Chariot Doublure Aile AR

Examples of our realizations



Testing Jig for Bumpers,
Tailgate, Door Panel,
Instrument Panel



Prototyp Parts in carbon fiber

