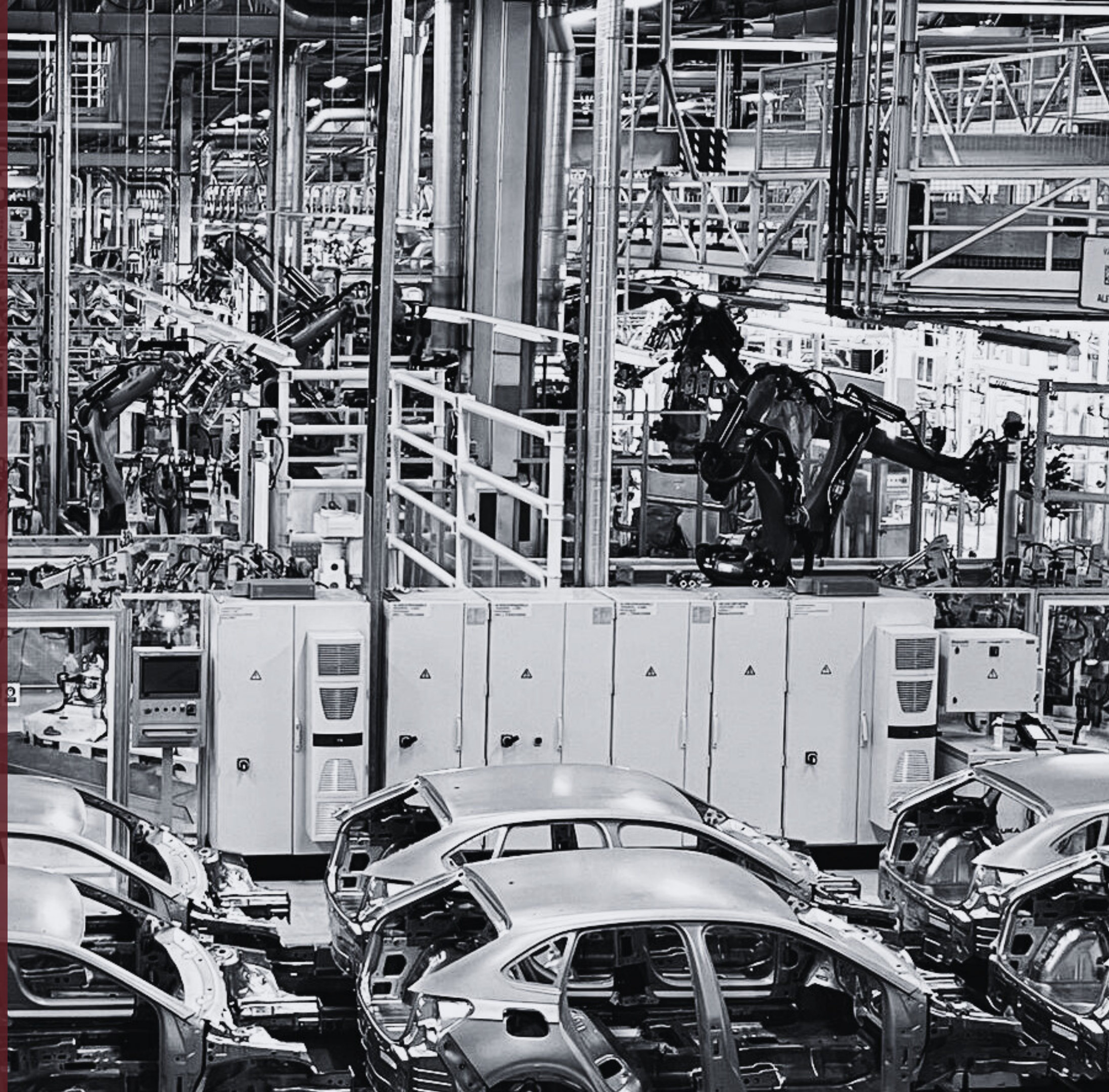


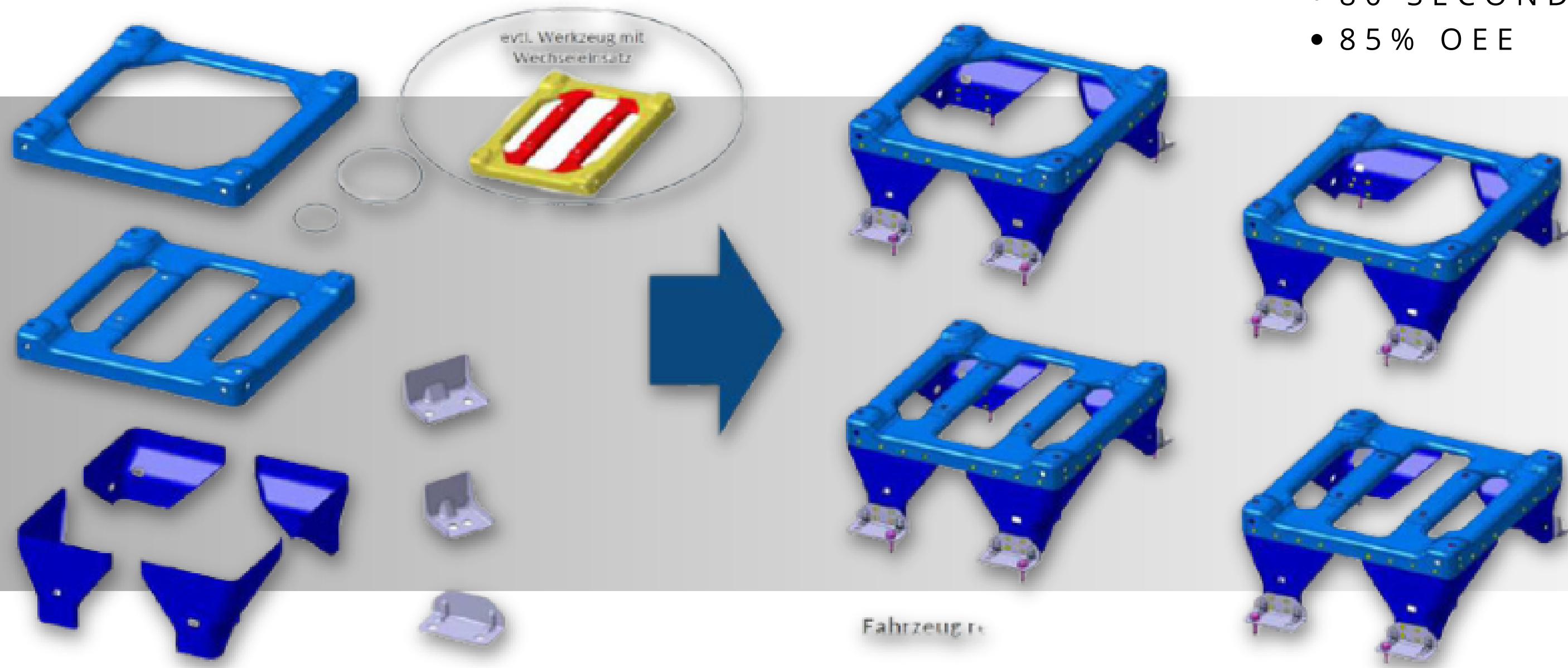
WELDING INSTALLATIONS

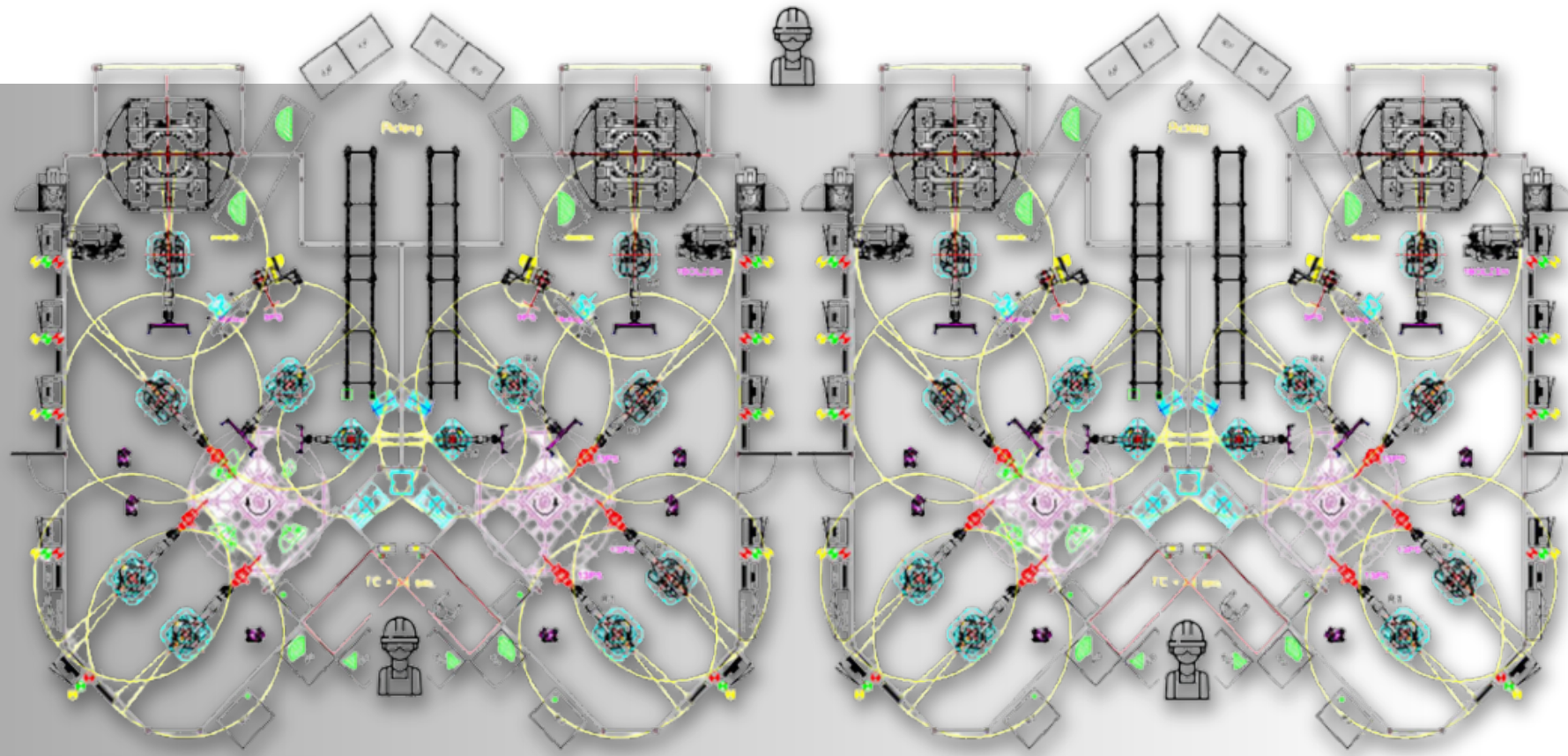
RESISTANCE AND MAG



TECHNICAL
SPECIFICATIONS:

- 80 SECONDS/PIECE
- 85% OEE

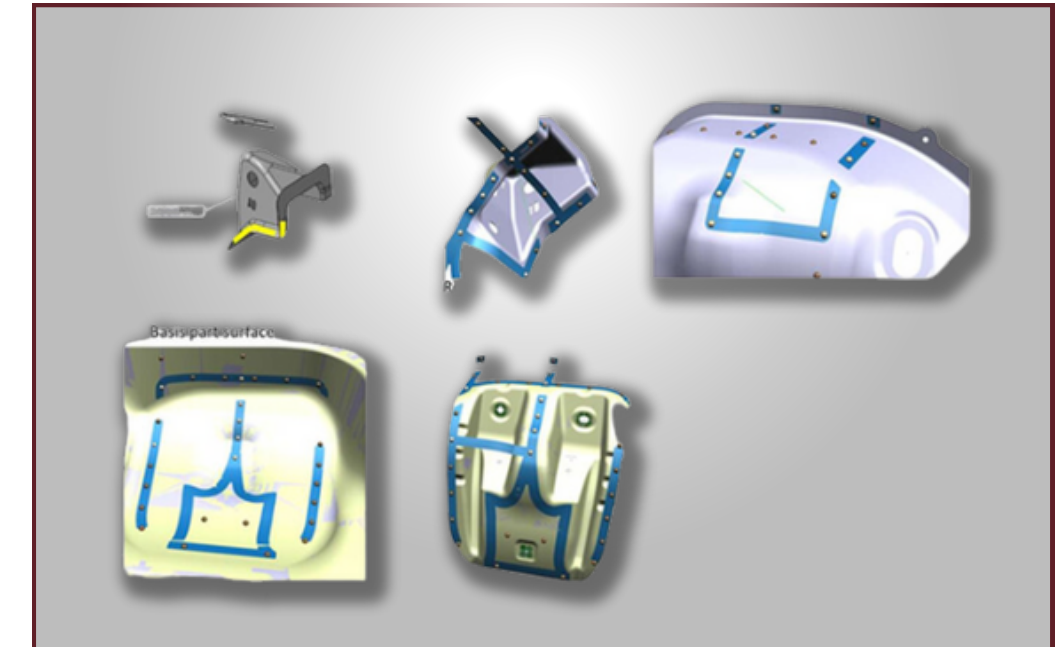




Installation layout.

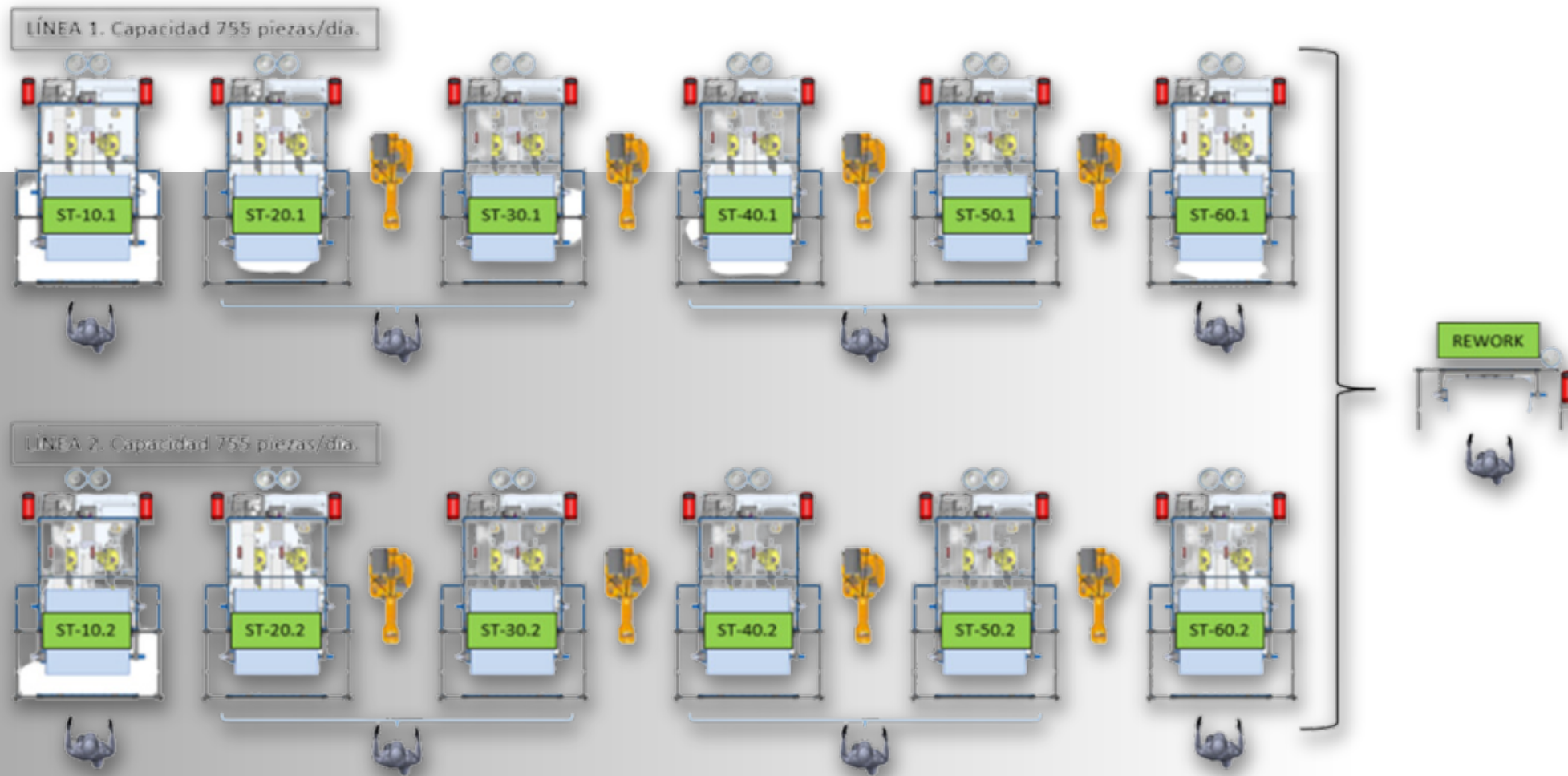
TECHNICAL SPECIFICATIONS:

- 44 SECONDS/PIECE
- 85% OEE





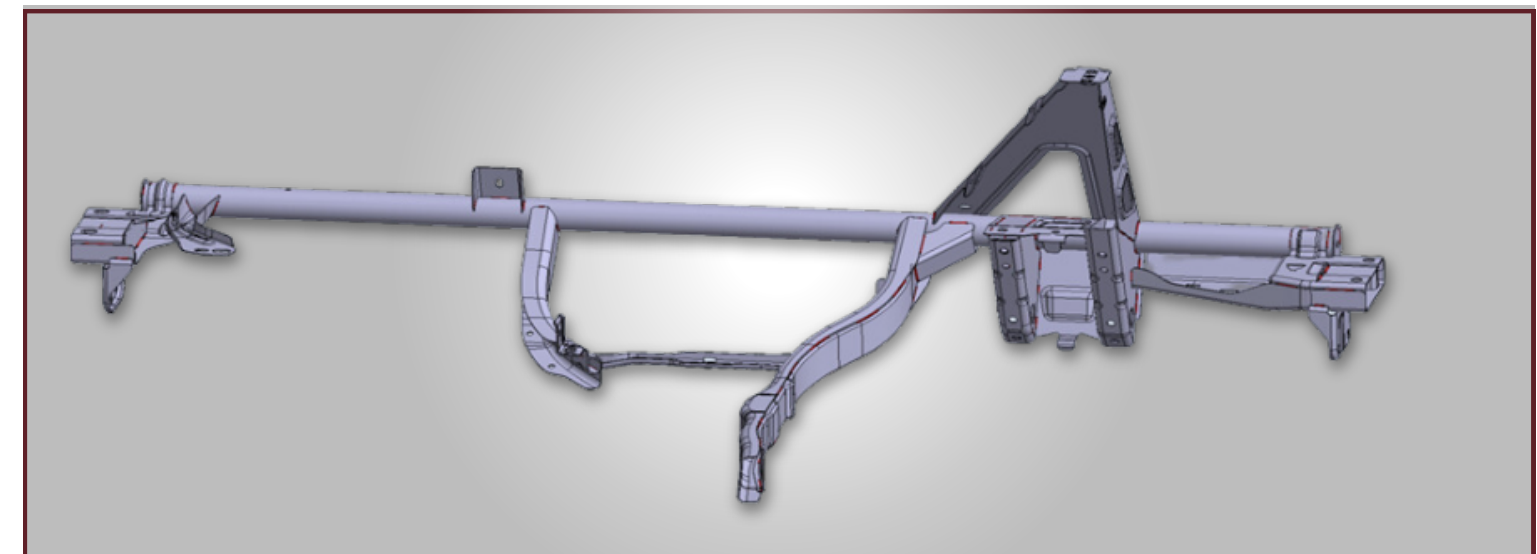
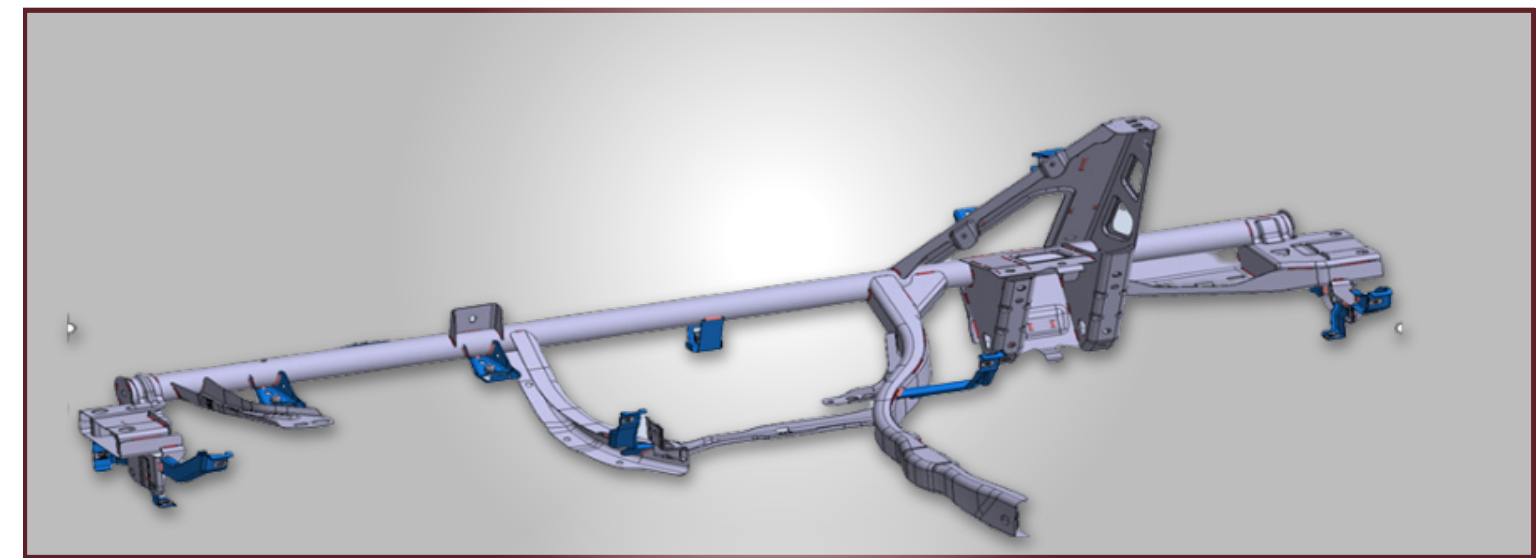
COCKPIT FRAME

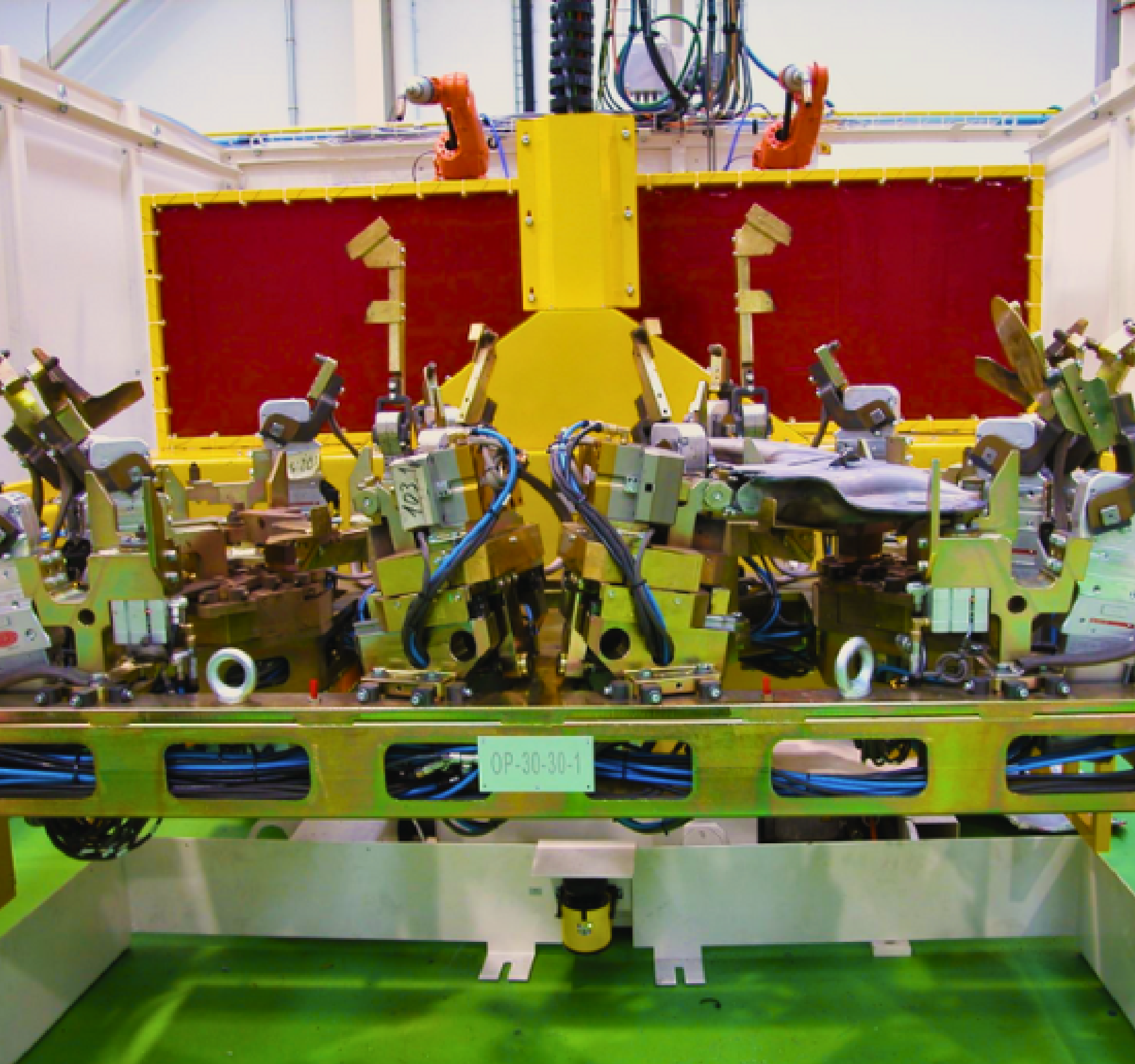


Installation layout.

TECHNICAL SPECIFICATIONS:

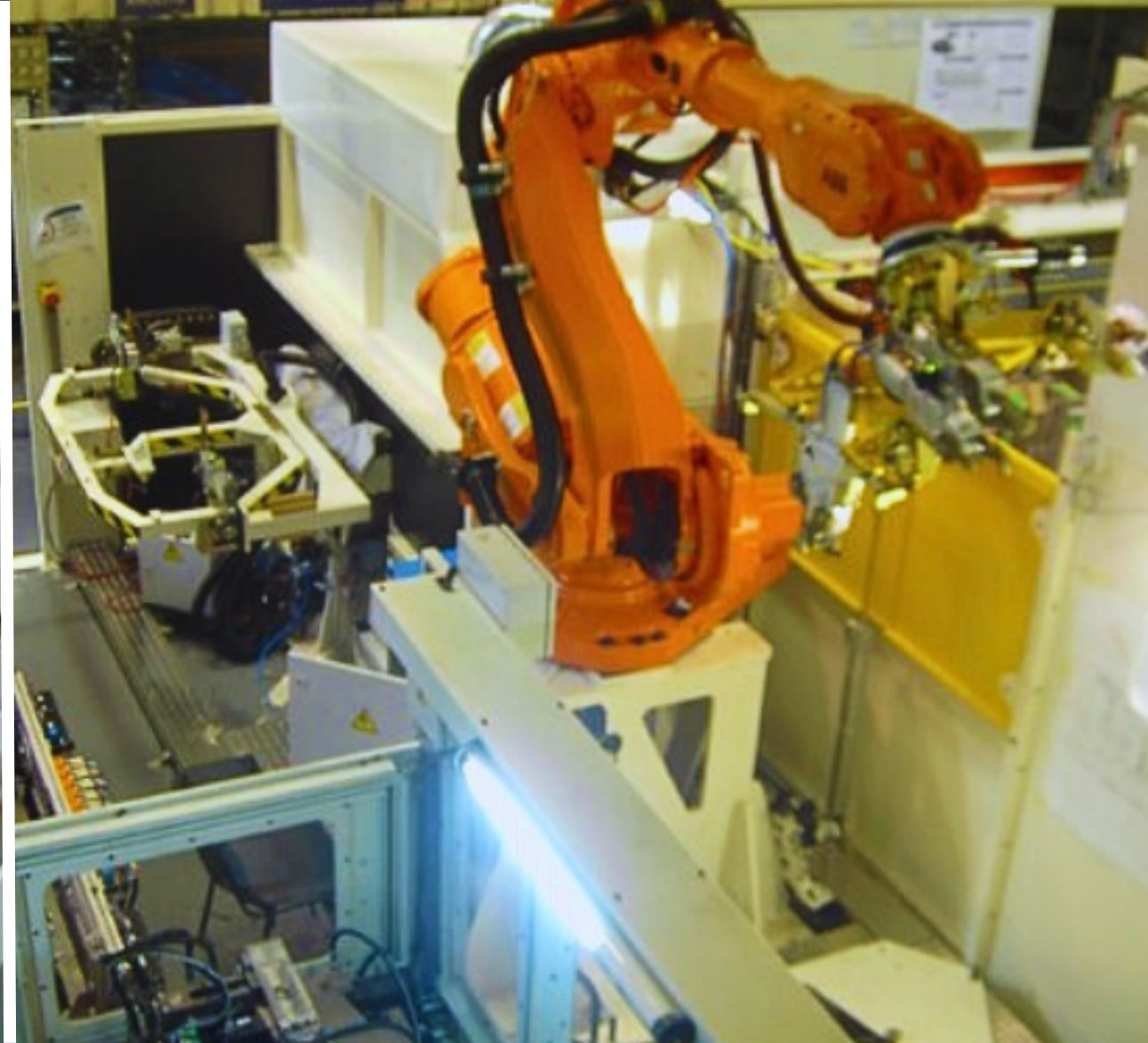
- 48 SECONDS/PIECE
- 85% OEE





WELDING SUSPENSION INSTALLATION VS20

- Complete chassis welding line. It includes several types of welding technologies: clamps and cord.
- The process is divided into different cells and each of them has UGI tools 180° horizontally and on itself.
- The tools are changed automatically.



TECHNICAL SPECIFICATIONS:

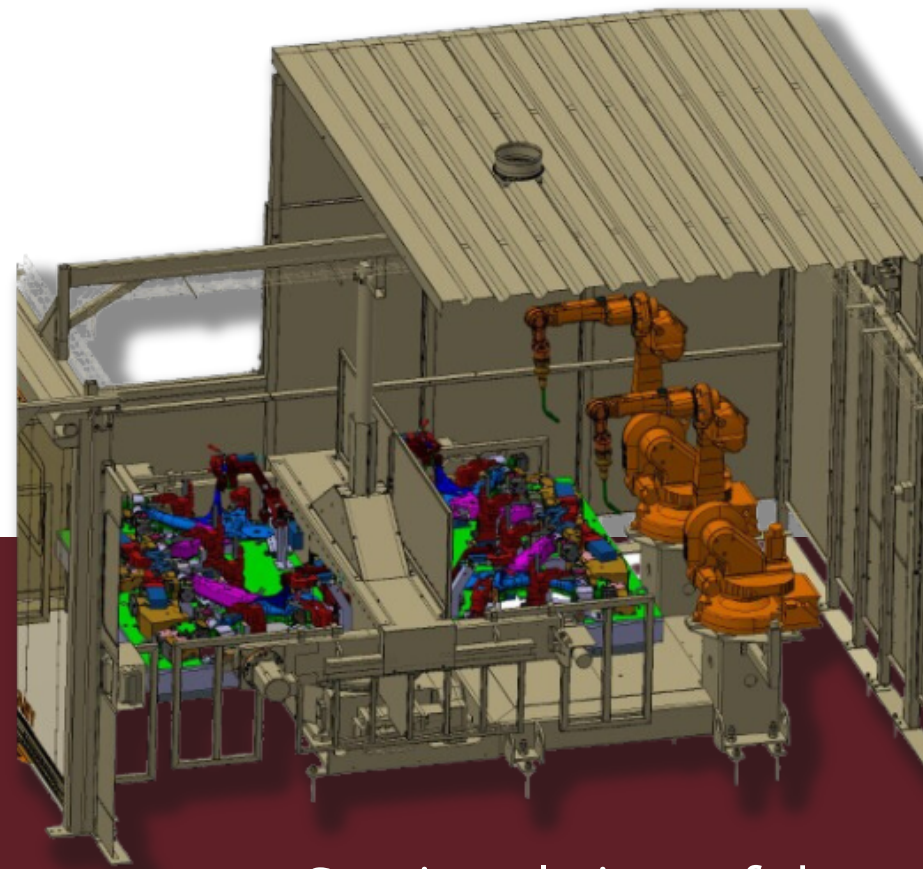
- Complete cell with 5 welding cabins.
- Each cabin with two MAG welding robots.
- Two tools per cabin, turning table and tool tables synchronized with robots.
- Loading and unloading with a robot when the part becomes important. At first it is done by the operators.
- The left and right arms are welded together.
- Cycle time 140 sec. left + right arm.
- Welding with robots on tools.
- MAG nozzle cleaning equipment.
- Rework position.
- Gauge checking correct dimensions.
- Machine for "machining" holes once the part has been welded.
- Automatic evacuation.

WELDING SUSPENSION INSTALLATION VS20

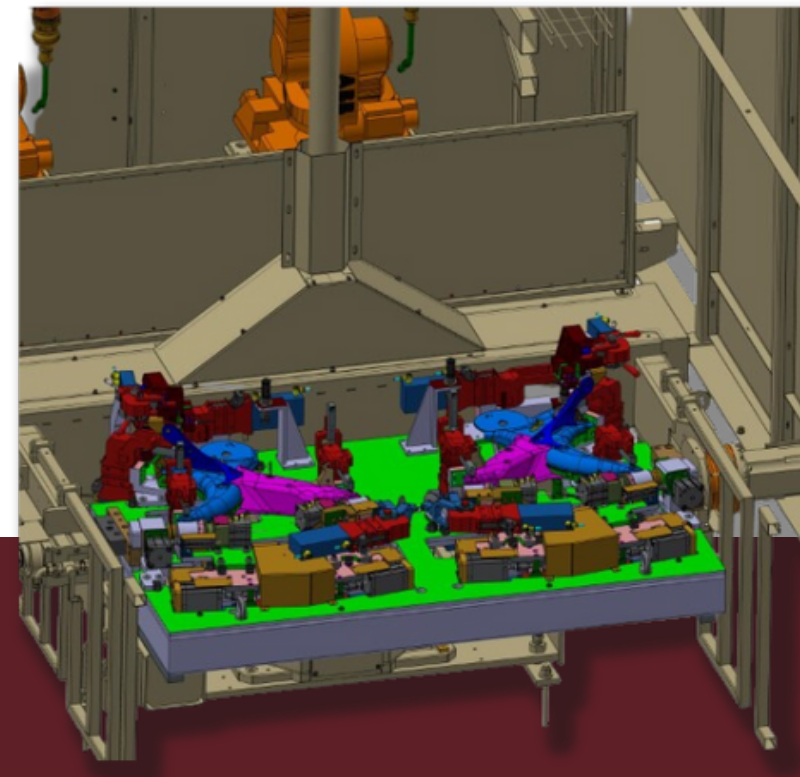
TECHNICAL IMAGES



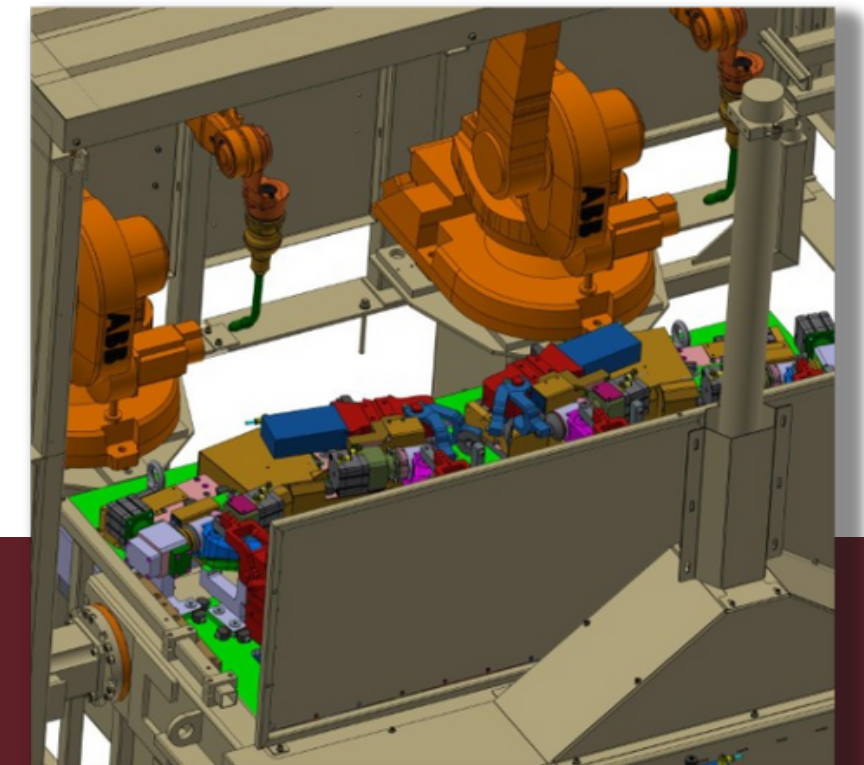
Installation layout.



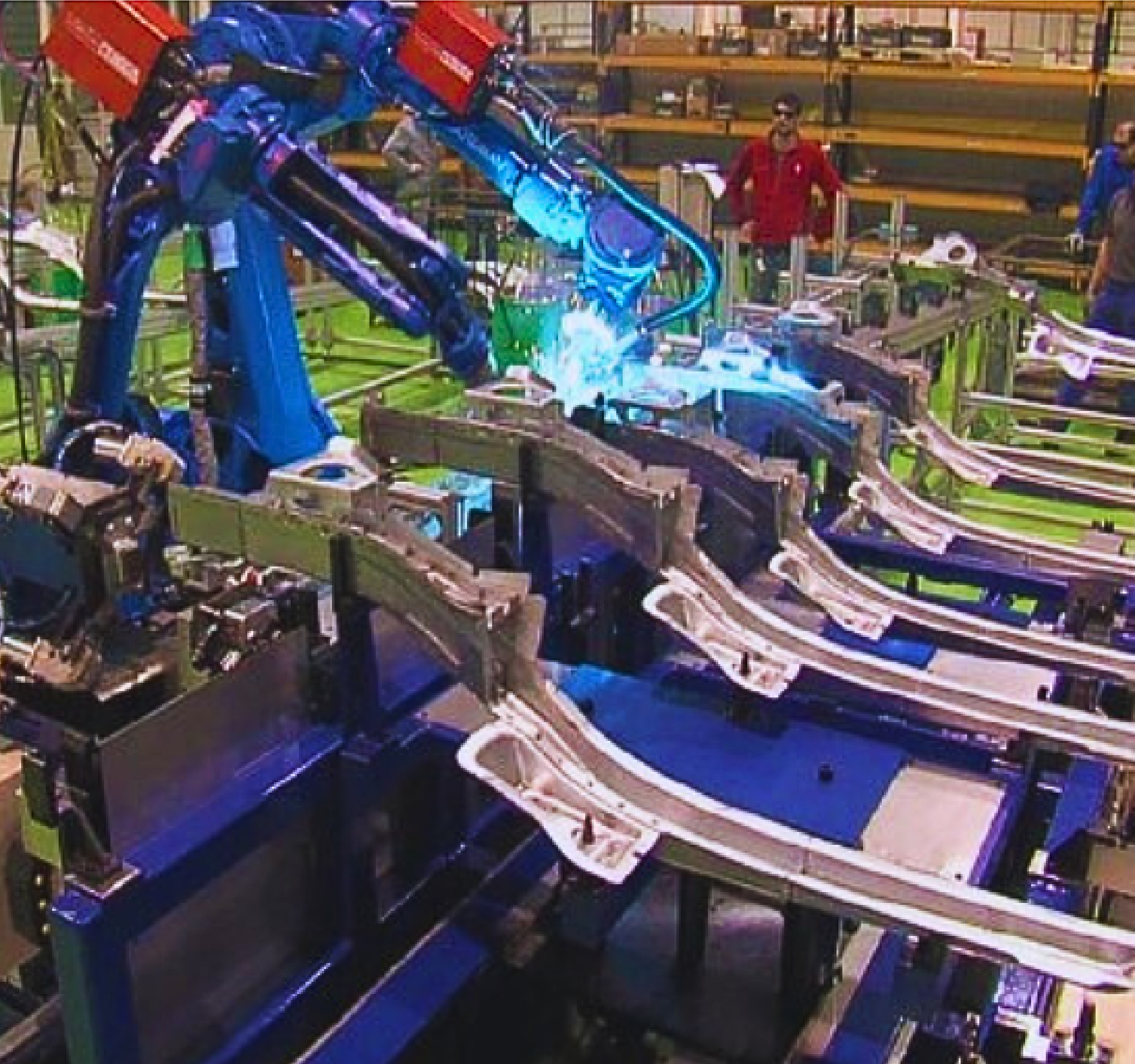
Sectional view of the cabin with tools and robots.



Loading area.

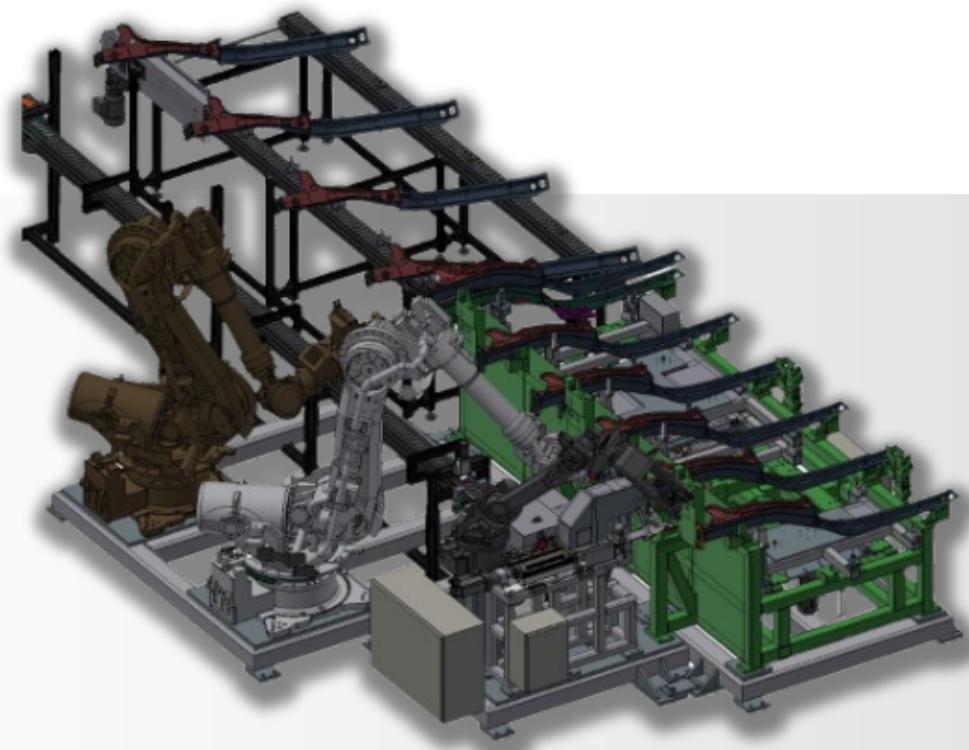


Robots and welding area tools.

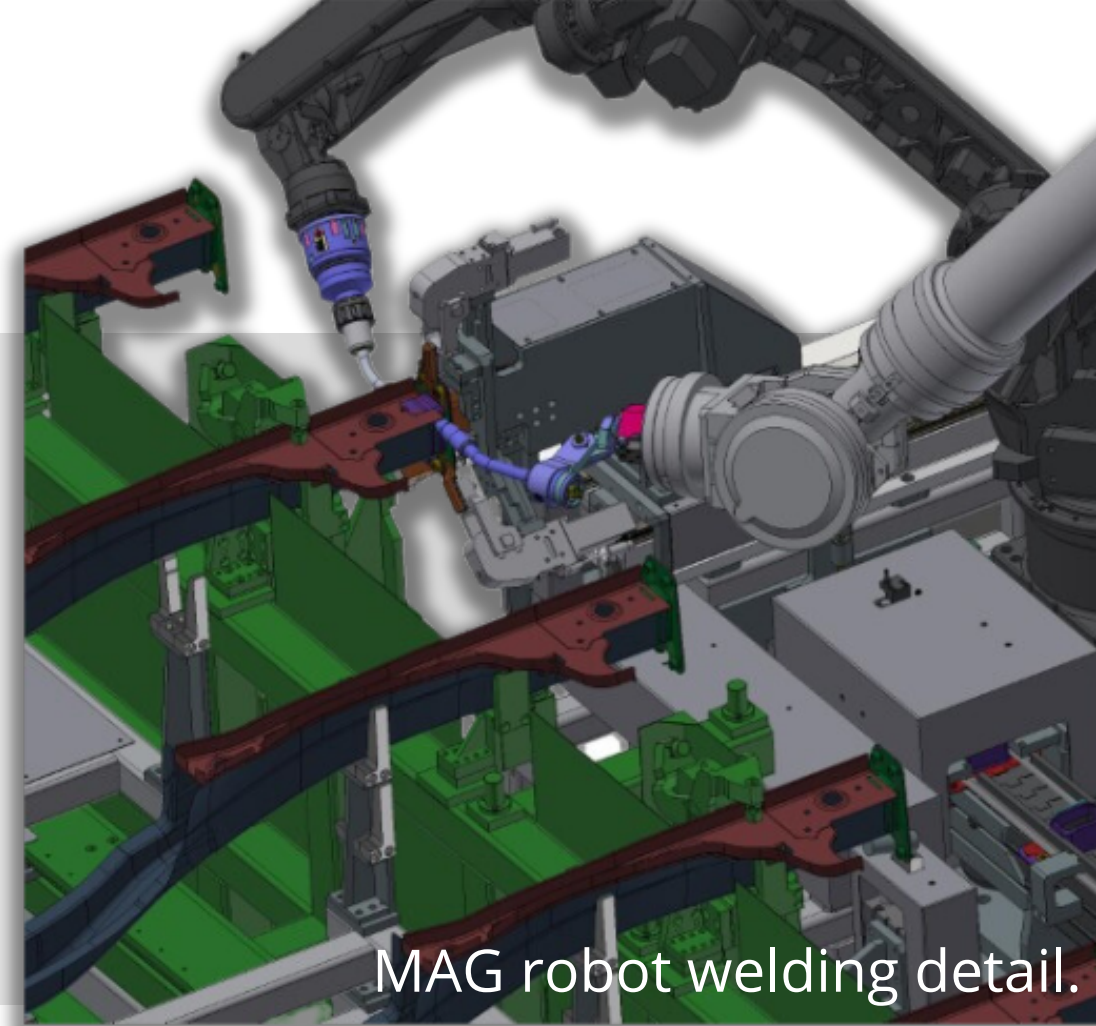


VW SILL WELDING INSTALLATION A04 AND A07 RESISTANCE AND MAG

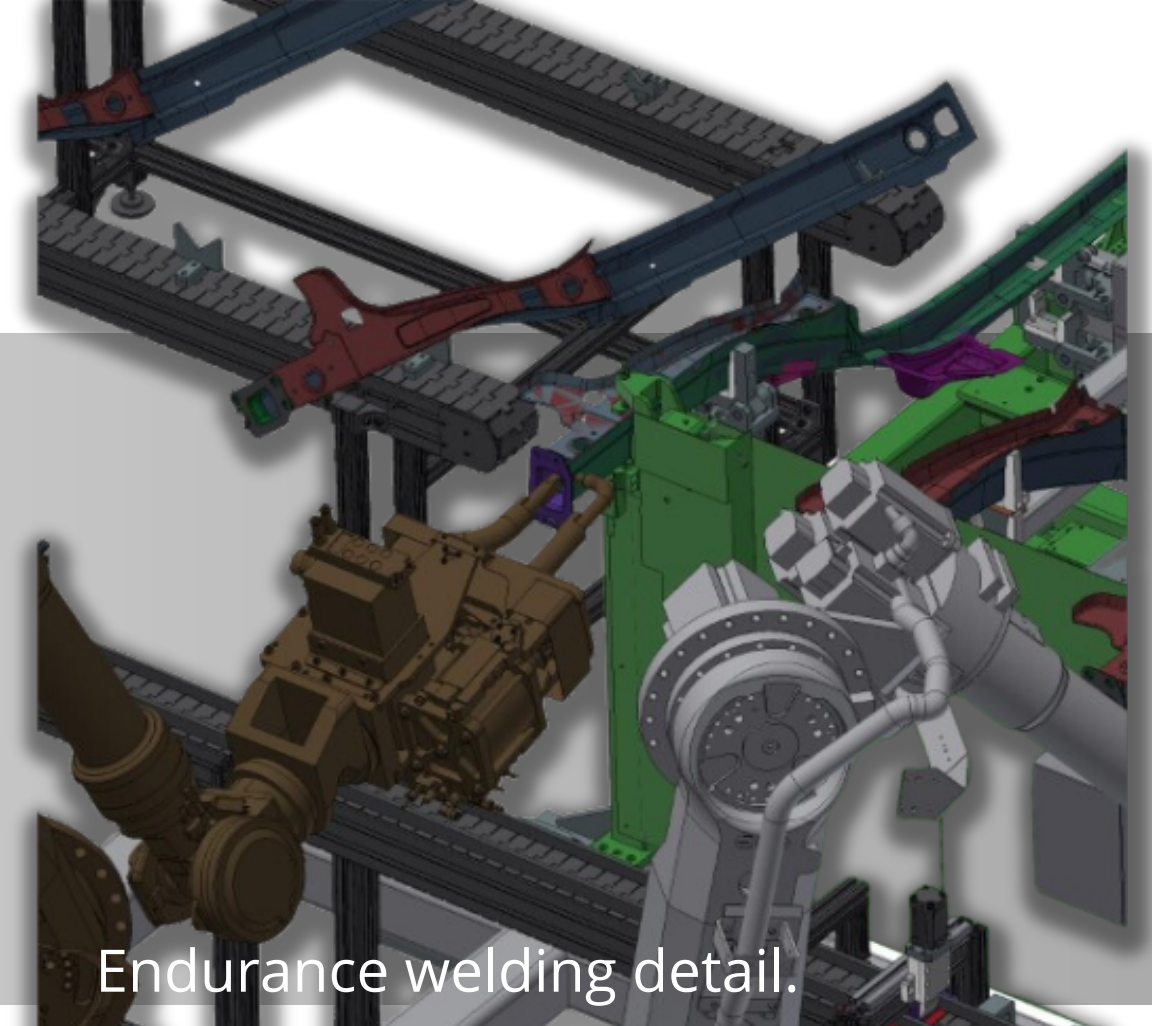
- Welding of the spar joint with the reference point of the car that requires great precision, avoiding tensions in the welding with the synchronized work of the robots.



General installation view.



MAG robot welding detail.



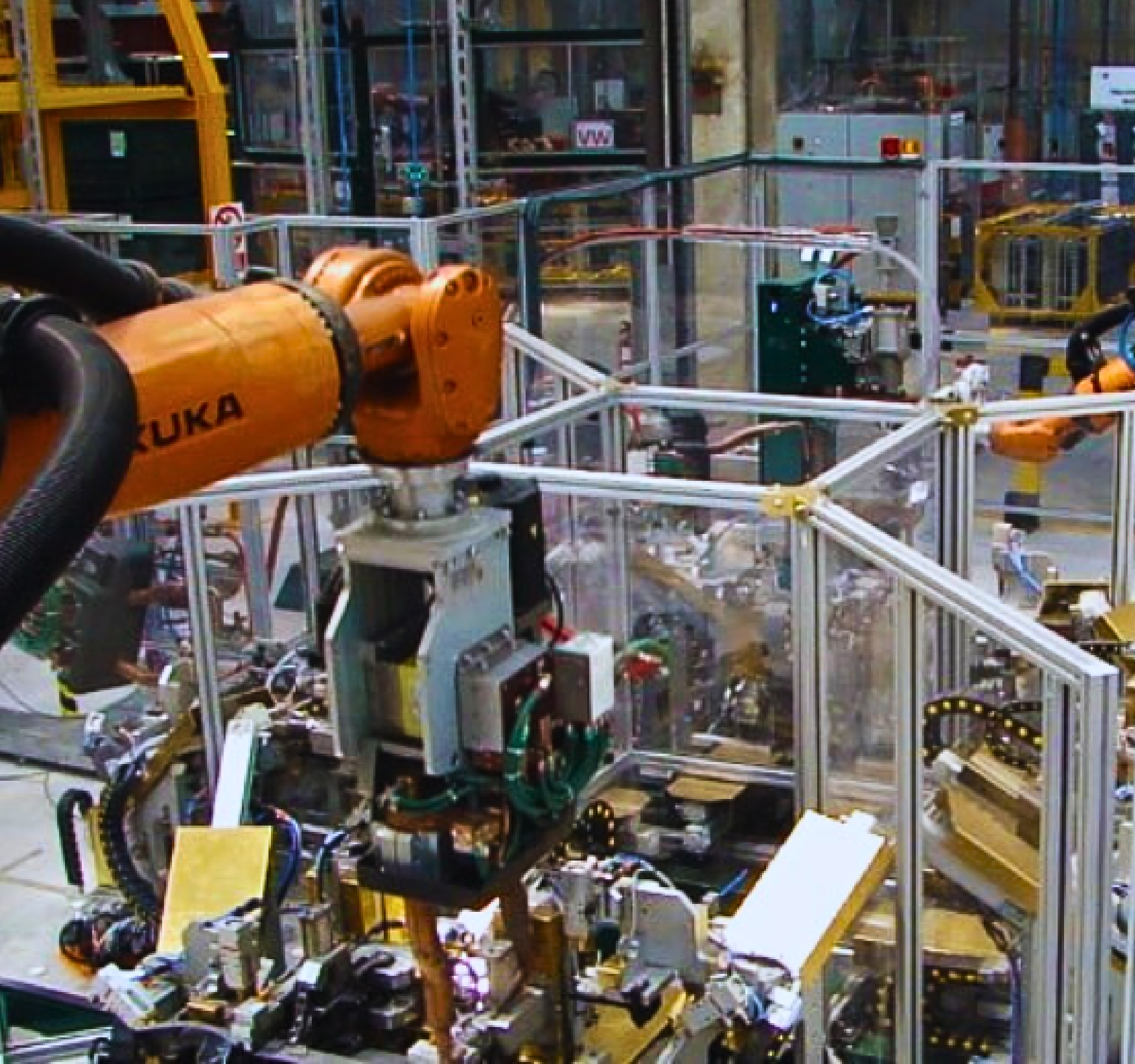
Endurance welding detail.

TECHNICAL IMAGES AND SPECIFICATIONS

- 2 symmetrical installations. Right crossbar and left crossbar.
- Cycle time 34.5 sec.
- Attached to an existing line on the client.
- Welding with robots.
- MAG seam welding. Two robots simultaneously.
- MAG nozzle cleaning equipment.

- Resistance welding with clamp mounted on robot.
- Load beam with robot.
- Automatic loading of the piece to be welded.
- Automatic evacuation.

VW SILL WELDING INSTALLATION
A04 AND A07
RESISTANCE AND MAG



RESISTANCE WELDING
INSTALLATION
QUERTRAEGER



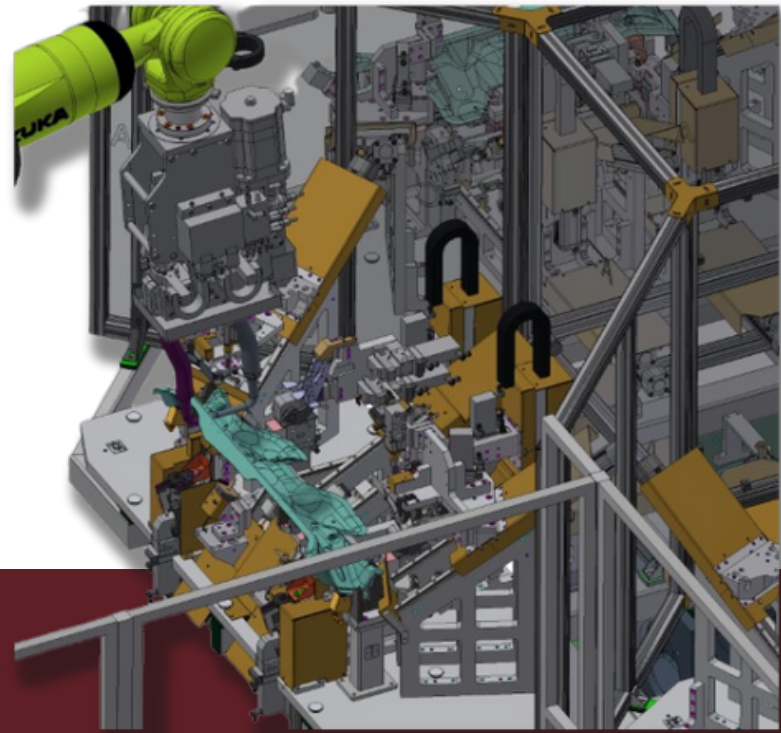
TECHNICAL SPECIFICATIONS

- Manufacture of 7 part variants.
- Cycle time from 45 to 58 sec. depending on the variant.
- Adhesive application by robot on part prior to welding.
- Nut welding.
- Welding with robots on tools.
- Fixed clamp welding.
- OK piece marking and automatic evacuation.

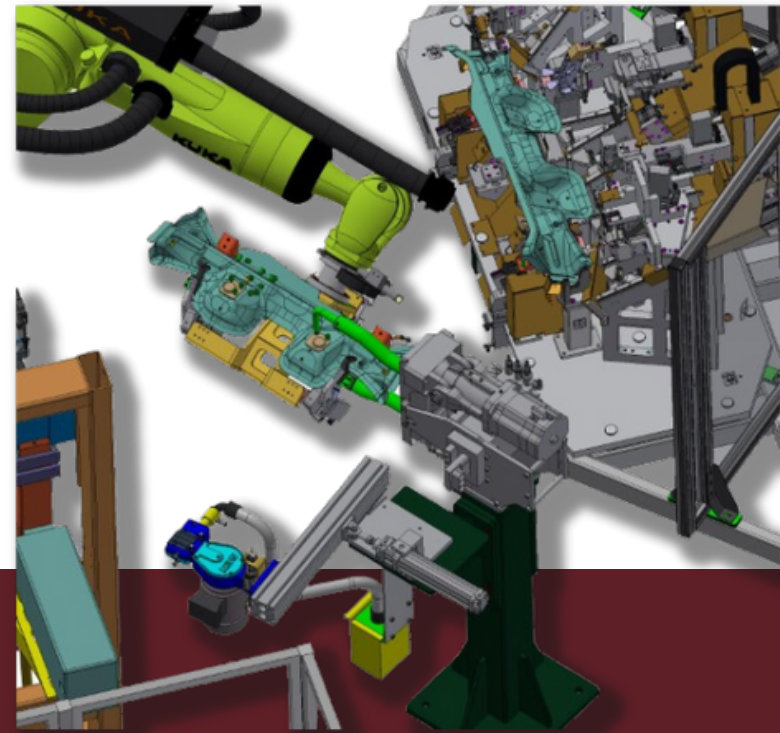
RESISTANCE WELDING INSTALLATION
QUERTRAEQUER



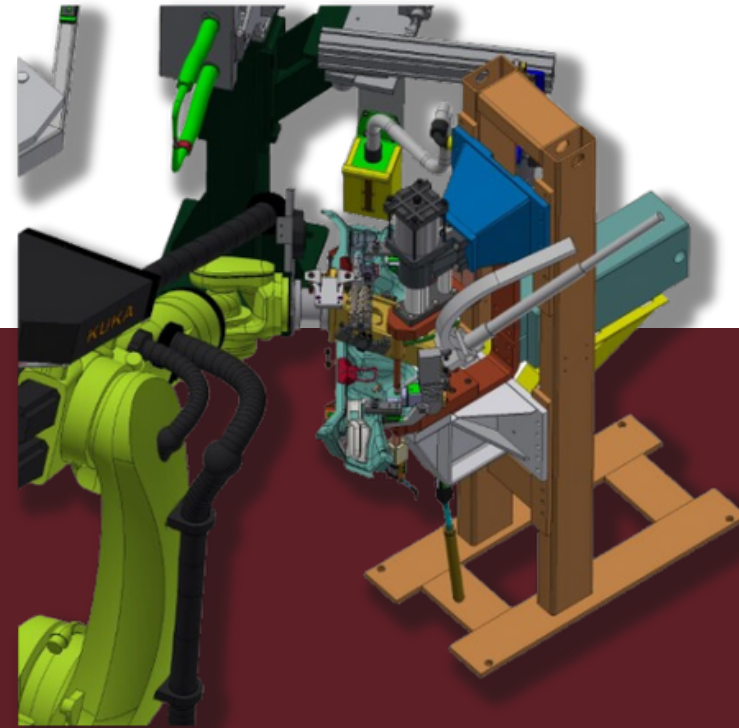
TECHNICAL IMAGES



Welding robots detail.

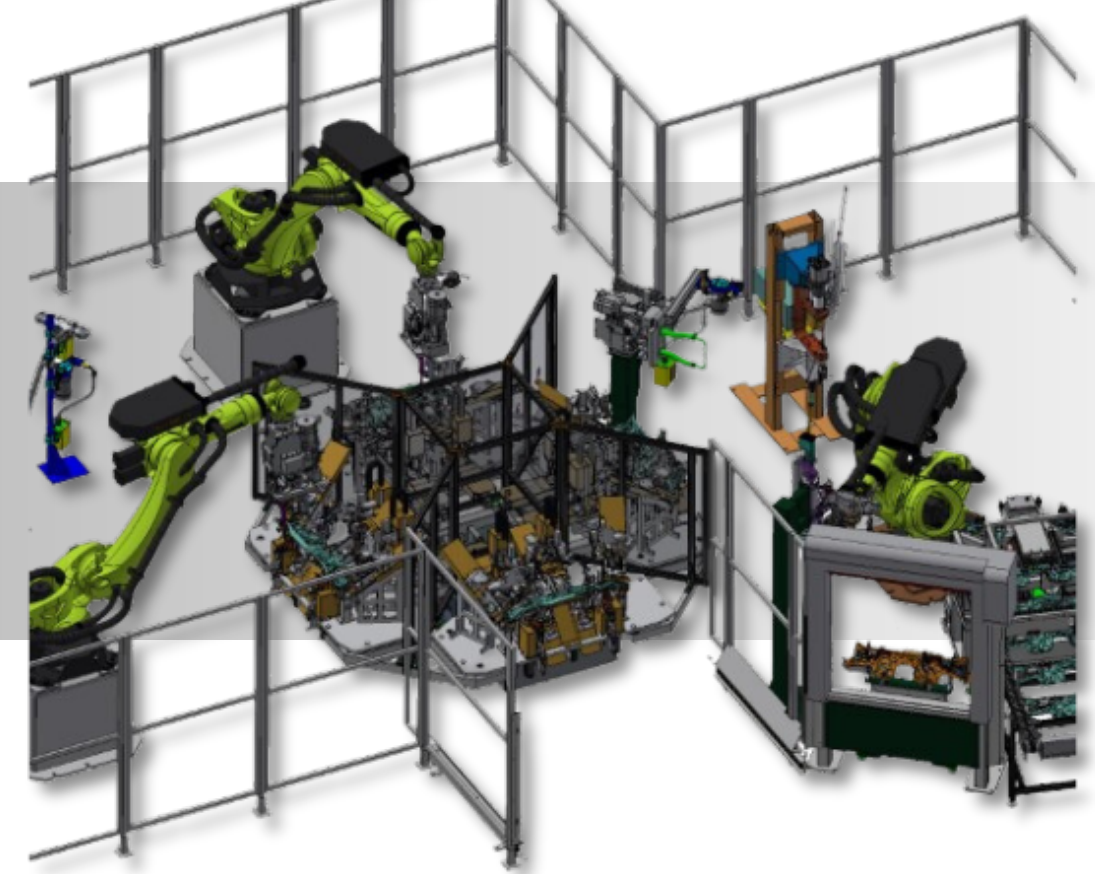


Welding detail in fixed clamp.



Nut welding detail in press with automatic feeder.

Installation general view.



RESISTANCE WELDING INSTALLATION
QUERTRAEGUER

