



amiSter
■ solutions for industry

**Manual or
semi-automatic
assembly
stations**

In the family of professionals
we guarantee **your success**
in industry.

amiSter

solutions for industry

Amister company provides automation-based control systems and solutions in the automotive industry. Our team is composed of professional automation engineers, roboticists and IT specialists. Each of them has many years of experience in design and implementation

The range of our services includes:

- Industrial Automation,
- SCADA visualisation systems,
- Robotics,
- Vision systems,
- MES class systems,
- Industrial informatics,
- S5 into S7 migration,
- Service, trainings.

Our offer comprises:

- consultancy on the development of technical assumptions,
- execution of the system electrical project,
- control systems software (PLC controllers of Siemens, Allen, Bradley, GE Fanuc),
- equipment delivery and control systems installation with launching at the customer's site,
- staff training in maintenance and operation of installed devices,
- maintenance of ongoing and existing installations,
- services for design and implementation of stations on production lines.

The products manufactured by Amister company are mainly automated special machines, machine prototypes and manual workstations. The main fields of activity of Amister company are automotive branch, food industry and home appliances.

As for automotive branch, we have participated in projects conducted in Germany, Great Britain, Spain, the USA, China, Mexico, Brazil, Czech Republic and Slovakia. We are working for: **EISENMANN, Thyssen Krupp, VAF, Faurecia, Sitech, Volkswagen, Lear, Adient, Kirchhoff and Fiat (FCA).**

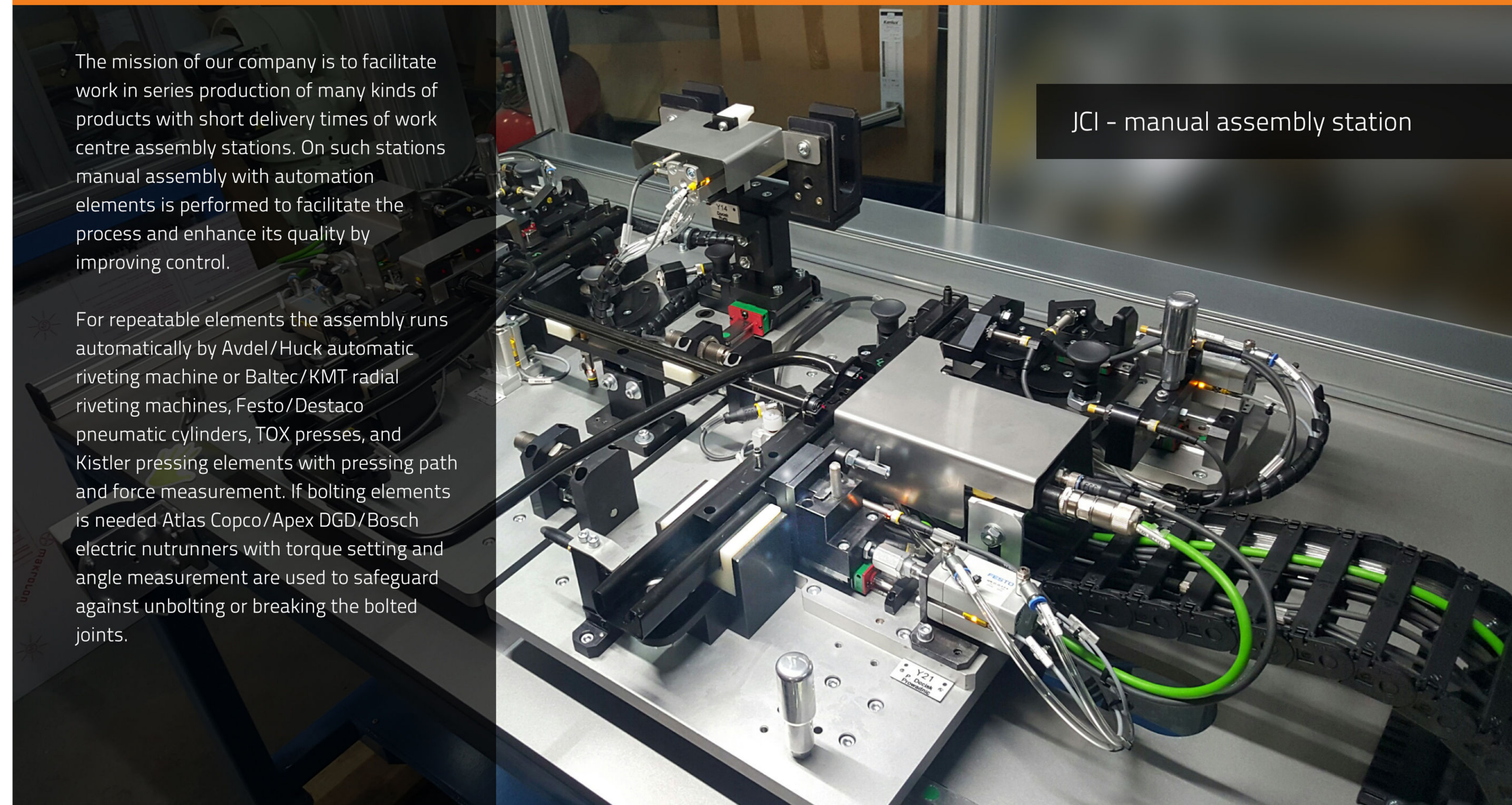
Manual or semi-automatic assembly stations

The mission of our company is to facilitate work in series production of many kinds of products with short delivery times of work centre assembly stations. On such stations manual assembly with automation elements is performed to facilitate the process and enhance its quality by improving control.

For repeatable elements the assembly runs automatically by Avdel/Huck automatic riveting machine or Baltec/KMT radial riveting machines, Festo/Destaco pneumatic cylinders, TOX presses, and Kistler pressing elements with pressing path and force measurement. If bolting elements is needed Atlas Copco/Apex DGD/Bosch electric nutrunners with torque setting and angle measurement are used to safeguard against unbolting or breaking the bolted joints.

JCI - manual assembly station

of automation systems as well as in the automotive branch in Poland and overseas. In Poland we are a provider of complete control systems and automation elements based on products of the following renowned companies: **Siemens, Murrelektronik, Rittal, Phoenix Contact, Sick, Cognex, Turck, Balluff, IFM, Keyence and Festo.**

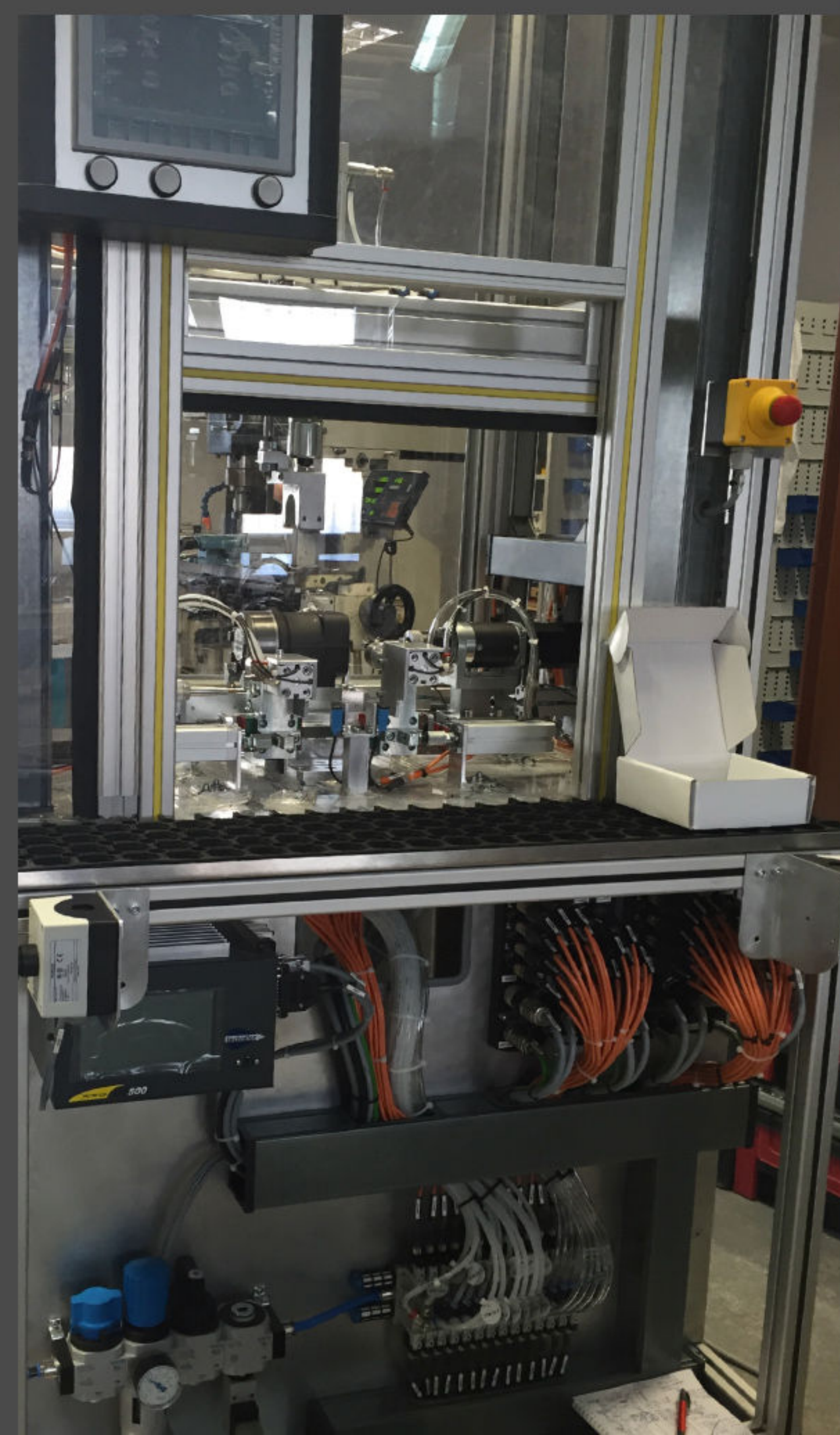


DANFOSS oil emptying

By default, depending on the assembly method, correct mounting is supervised by Siemens controller type S7-1200 or S7-1500 with Siemens operating panel type KTP300 or TP900.

For a complete tracing of the product optionally we install EKS/KABA readers to log the employees for identification and assign their ID numbers to the installed product. After a proper installation, a DMC code and description label is printed and put on the product for further identification.

In addition, all data concerning the assembly, e.g. tightening torque value, tightening angle, possible pressing force and path of the element and the worker ID are stored on a data server and available via a web browser.



The tightening and loosening workstation the 'Torque Plate' element from the engine block. The workstations possess synoptic tables (with a two-coloured LED diodes) prompting the worker which bolt should be loosened/tightened, loosening/tightening control indicating which bolt is currently being processed (nutrunner position in two

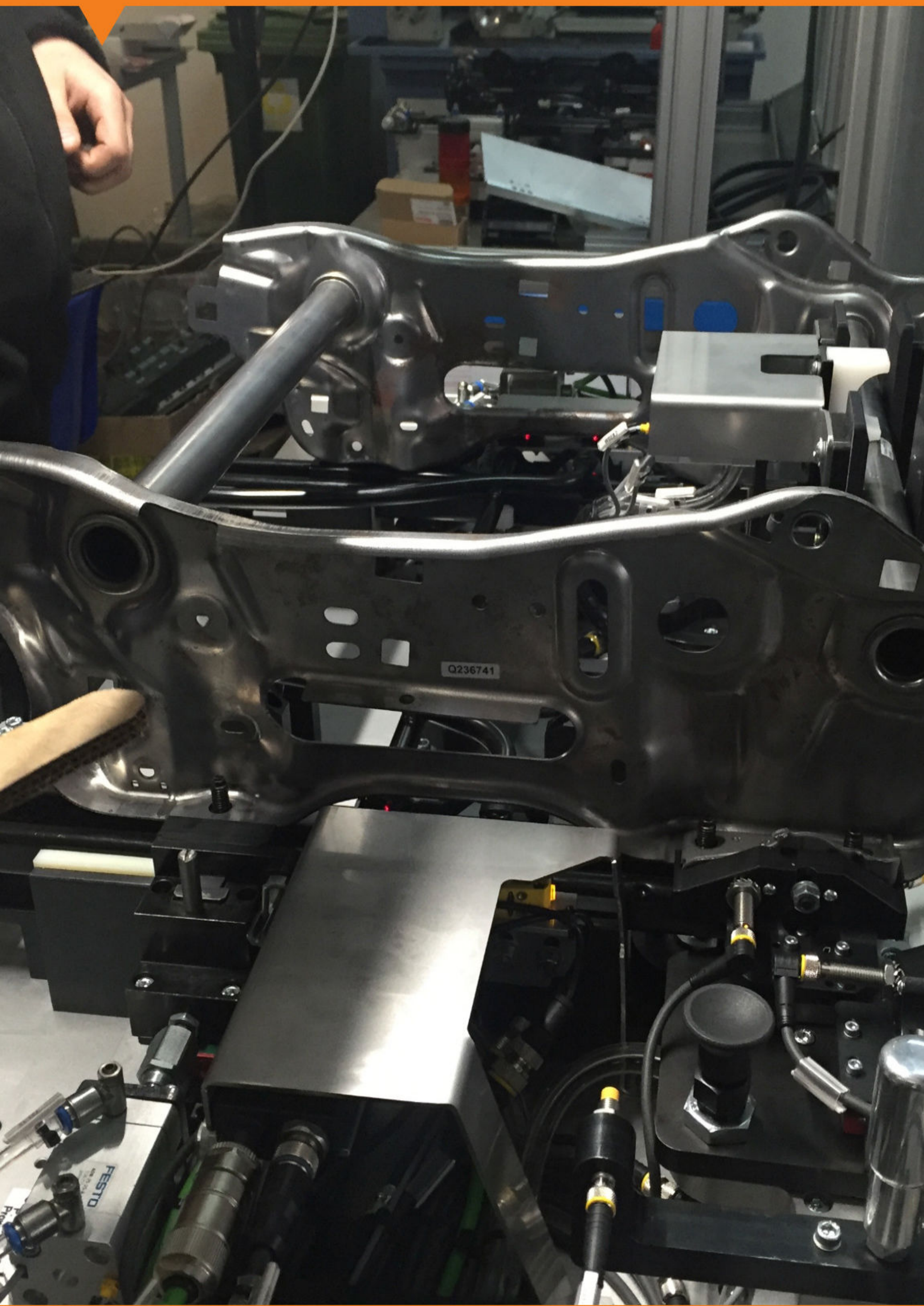


Fiat FCA BB - bolting with torque and angle measurement for Torque Plate

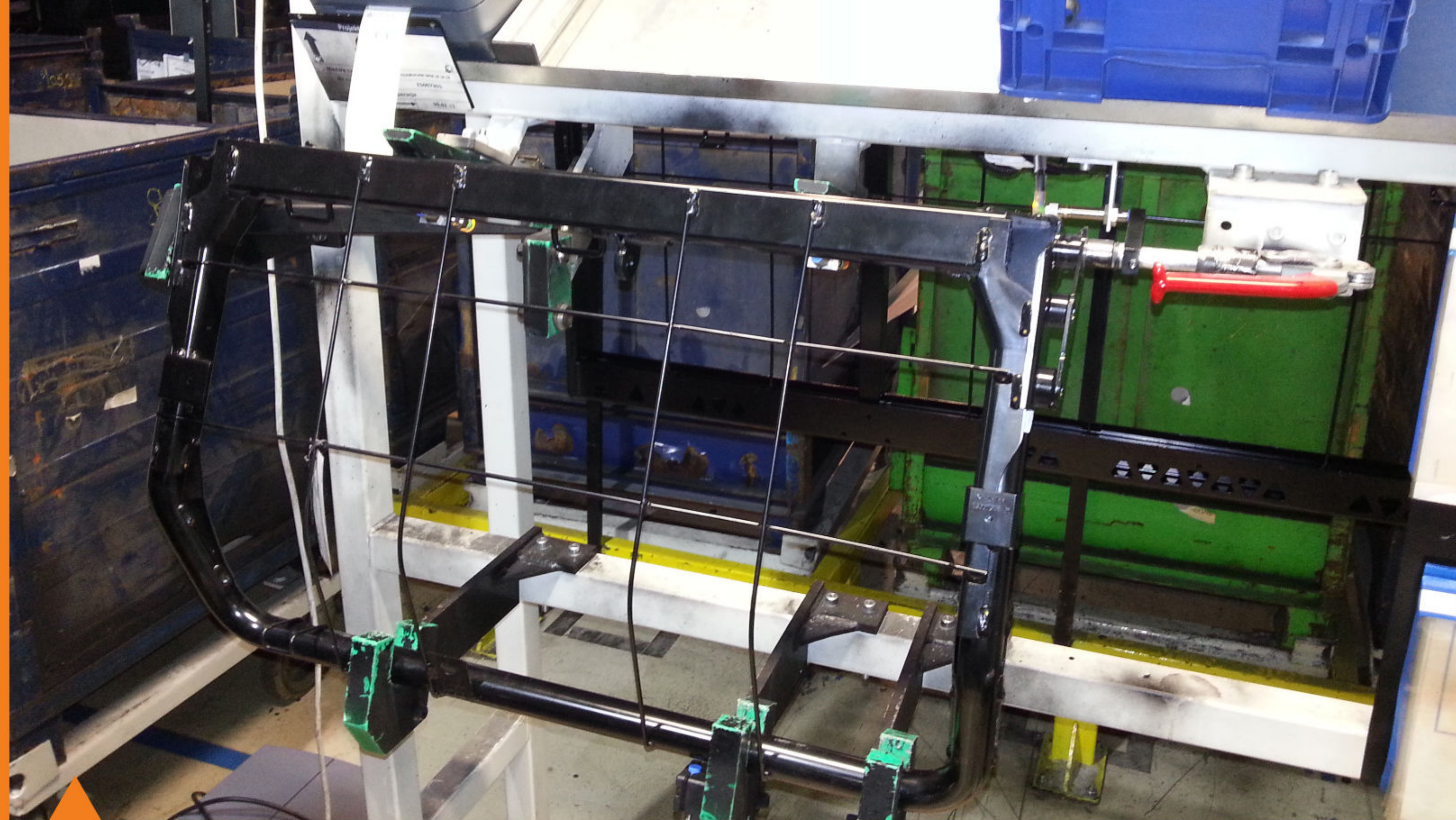
axes X and Y) and a possibility of switching the tightening settings (various torques in different phases of the process). APEX electric wrenches. Leading the wrenches on HIWIN rails and SIRA balancers. The workstation was completely made by AMISTER employees.



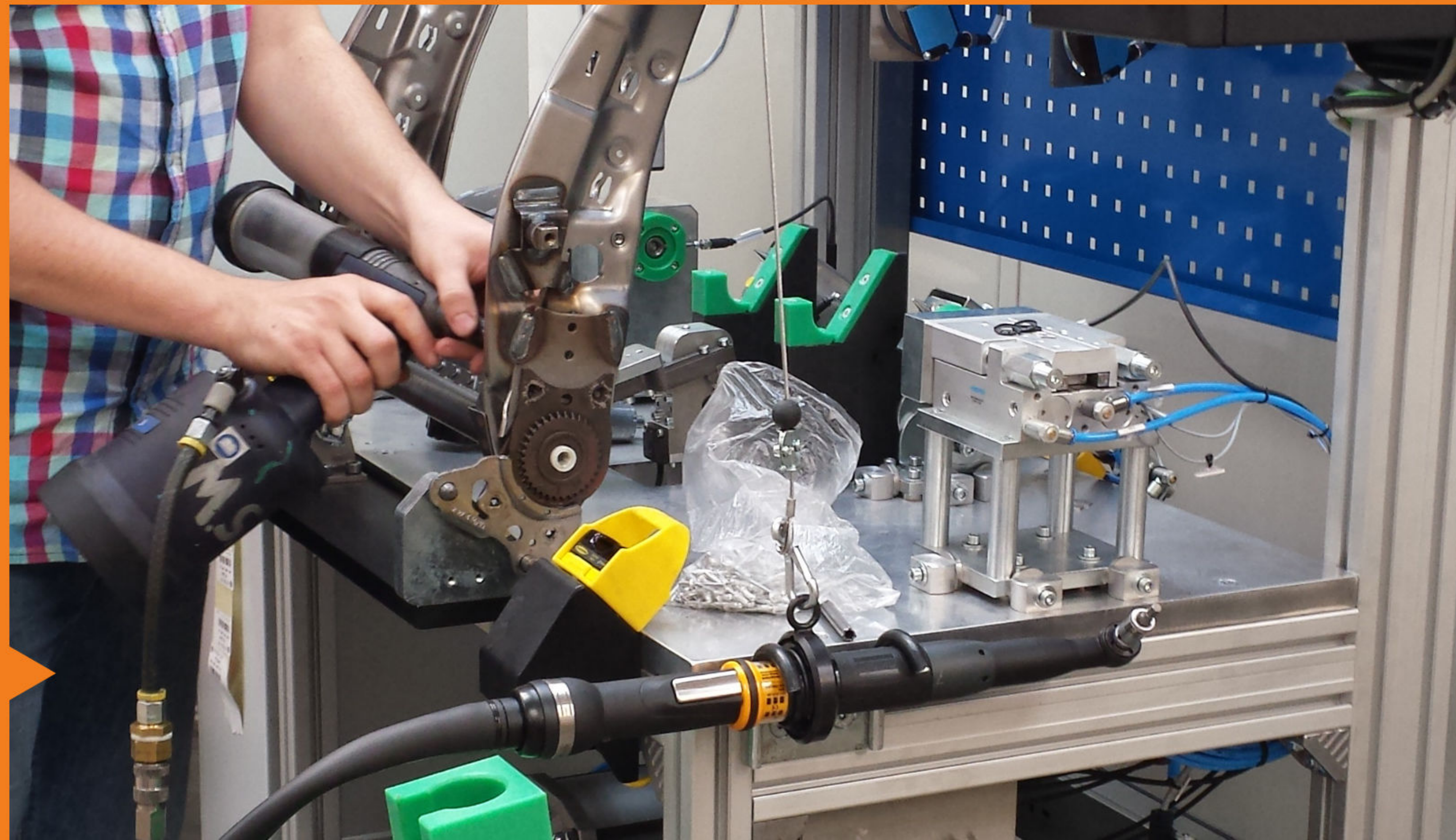
JCI manual assembly station



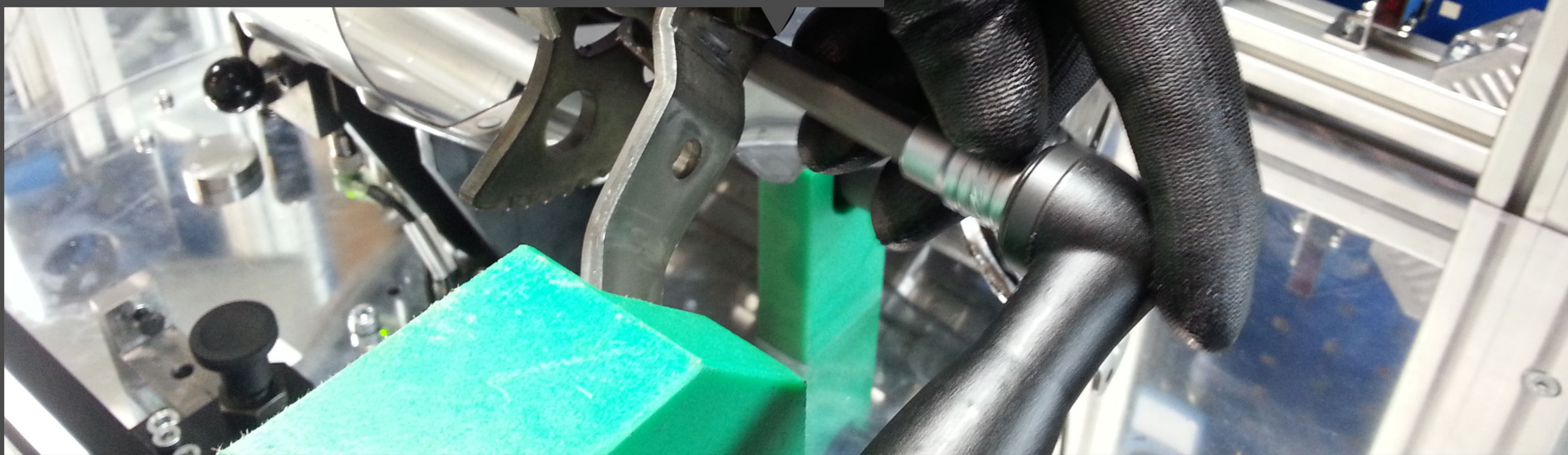
Sitech manual assembly station



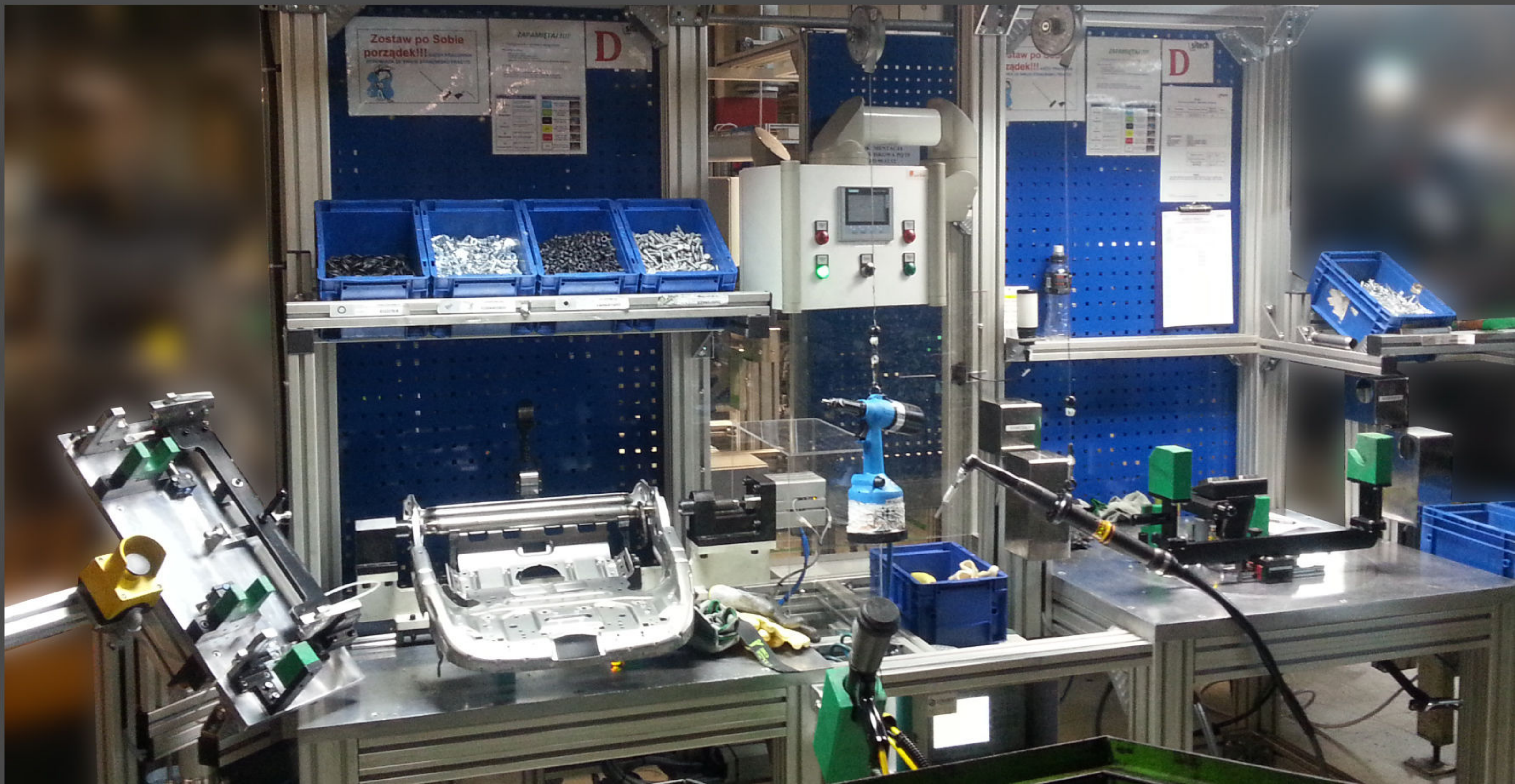
SITECH AMAROK manual assembly station of pick up Amarok backrest



SITECH PQ24 manual assembly station



SITECH PQ35 manual assembly station





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of the future