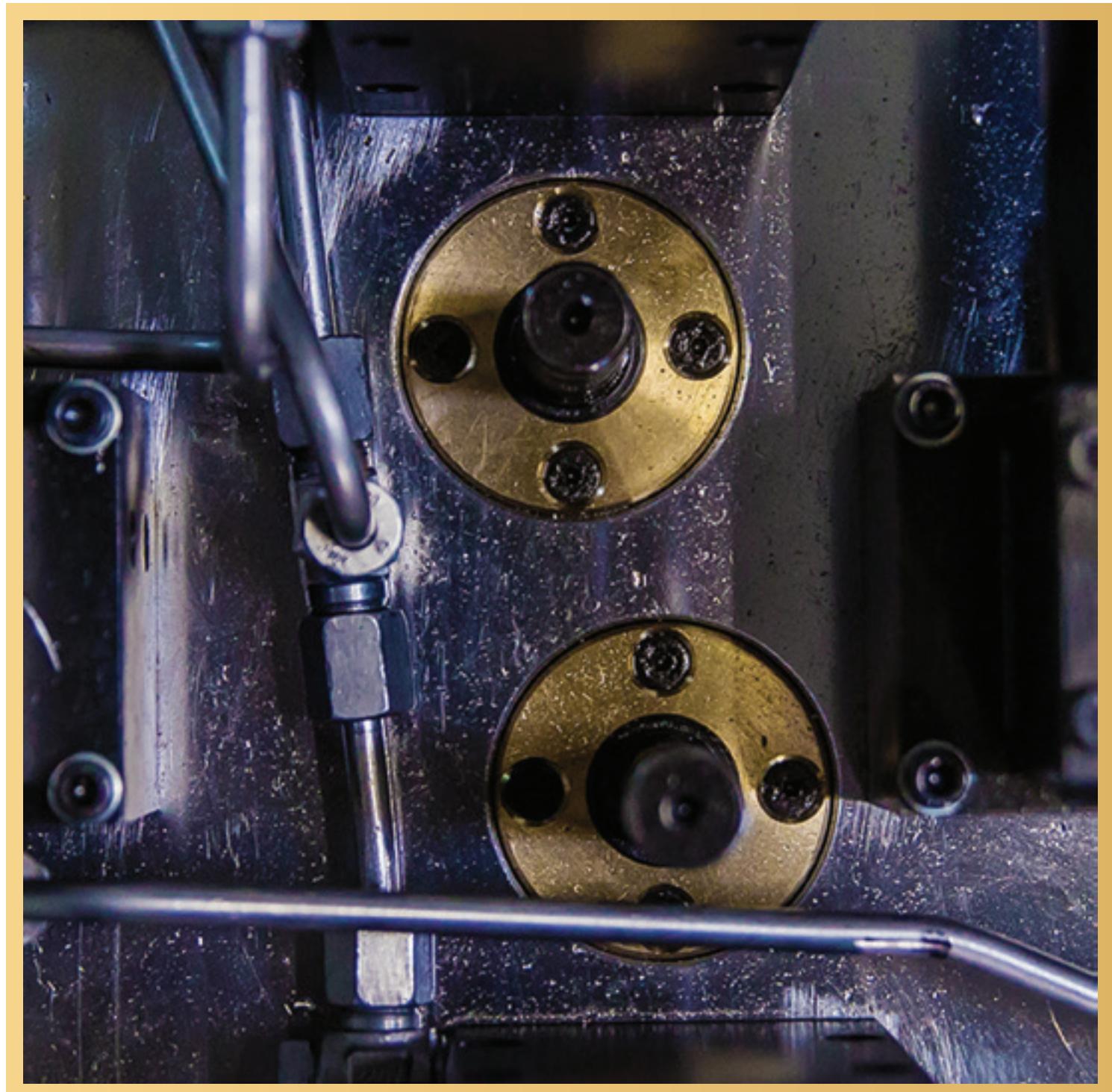


ipad

20  
20





CE FACEM  
WHAT  
WE DO



Suntem o echipă de profesionisti ce oferă soluții de automatizare și design industrial. Asigurăm dezvoltarea de soluții de la idee până la punerea în funcțiune și startul activității de producție, abordând fiecare proiect ca pe o oportunitate de a ne ridica standardele de calitate, siguranță și durabilitatea serviciilor oferite.

We are a team of professionals who offer automation solutions and industrial design. We ensure the development of solutions from idea to commissioning and start of production activity, approaching every project as an opportunity to raise our standards of quality, safety and sustainability of the services offered.





CINE SUNTEM  
WHO WE ARE

Compania a luat nastere in 2001, fondata de inginerul Ion Pătrașcu, combinand experienta in proiectare de peste 20 de ani clădită pe baza activității de proiectare din Germania, si dorinta realizarii visului de a proiecta si construi masini speciale in Romania.

The company took birth in 2001, founded by the engineer Ion Patrascu, combining experience in the design for over 20 years built on the basis of his design activity in Germany, and the desire to fulfill his dream to design and build special machines in Romania.

De aproape doua decenii compania IPAD utilizează roboți în diverse procese de integrare, inclusiv sisteme de asamblare în industria auto. Expertiza legată de procesele de producție aduce beneficii în orice domeniu industrial.

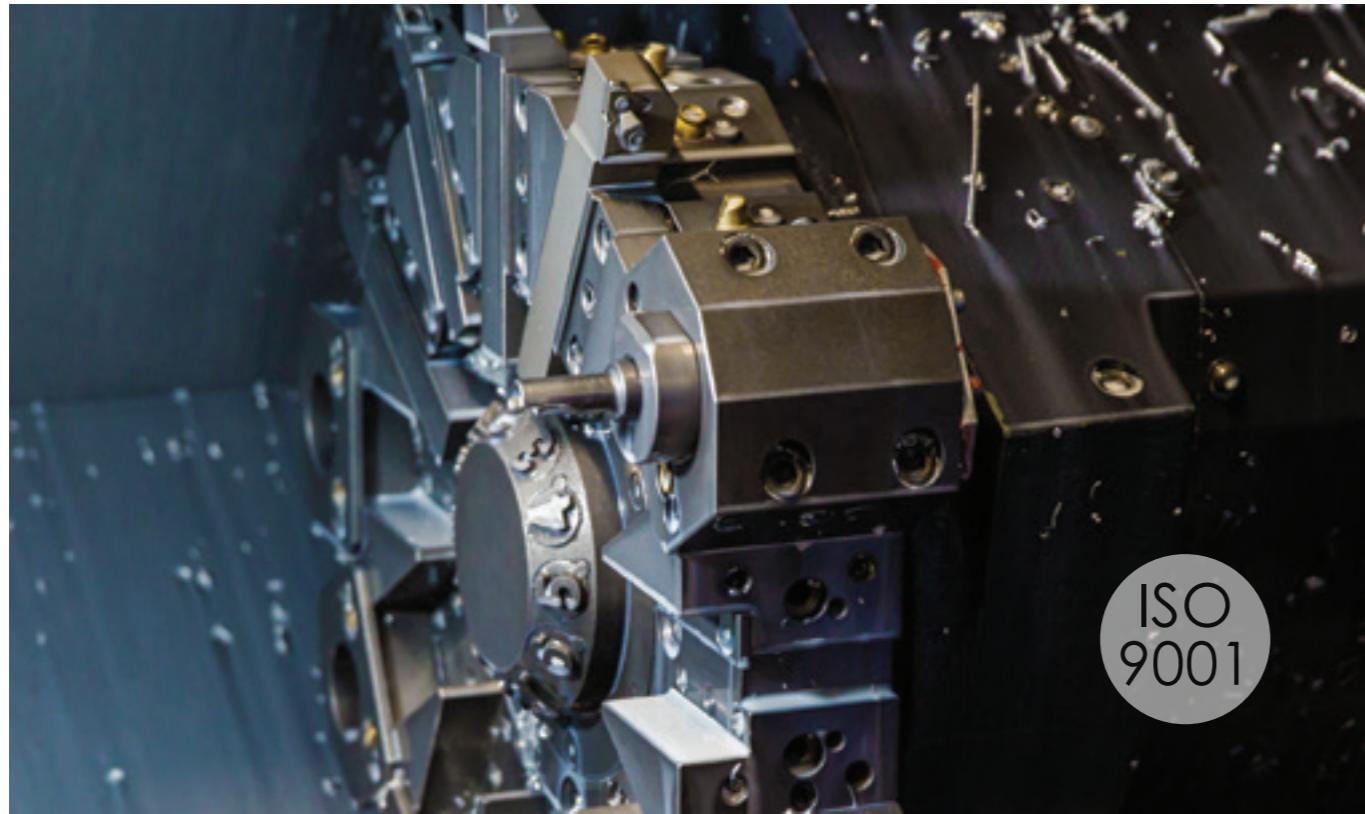
For almost two decades the company IPAD uses robots in various processes of integration, including hardware systems in the automotive industry. The expertise related to the production processes brings benefits in any industry.

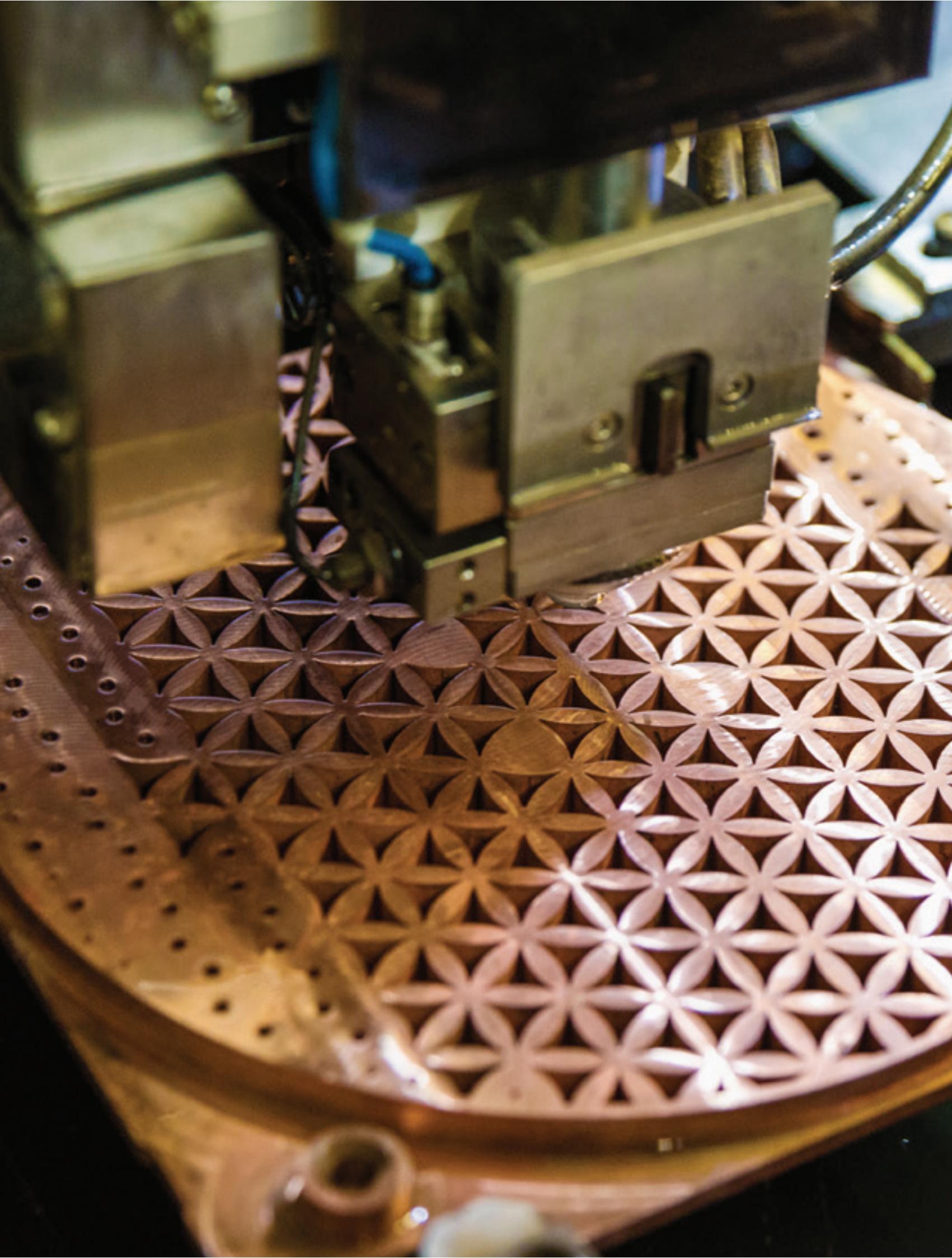
## PERFORMANȚA SI CALITATE PERFORMANCE AND QUALITY

**PERFORMANTA SI CALITATE**  
**PERFORMANCE AND QUALITY**

Compania IPAD este certificata ISO 9001/2008. Pasiunea noastră înseamnă dedicare, eficiență și gestionarea la timp a problemelor tehnice și comerciale. Reputația IPAD reprezintă o dorință permanentă de a îmbunătăți și optimiza, procesele tehnologice și cele de implementare a proiectelor industriale la cele mai înalte standarde de calitate.

The IPAD company is ISO 9001/2008 certified. Our passion means dedication, efficiency and timely management of technical and commercial issues. The reputation of IPAD is a permanent desire to improve and optimize the technological processes and the implementation of industrial projects at the highest quality standards.





# **ABORDAREA PROIECTELOR PROJECT APPROACH**



## IDENTIFICAREA PROBLEMEI

Procesul de rezolvare a unei probleme sau optimizare a unui proces industrial are trei faze mari: identificarea problemelor reale, gasirea solutiei optime si dezvoltarea si implementarea solutiei. Identificarea problemelor tehnologice si a limitarilor constructive a unui produs sau unei linii de fabricatie este primul si cel mai important punct. Cu cat exista mai multe date referitoare la problema cu atat mai repede se poate gasi o solutie.

## IDENTIFYING THE PROBLEM

The process of solving a problem or optimizing an industrial process has three major phases: Identifying real problems, finding the optimal solution, and developing and implementing the solution. Identifying technological issues and constructive limitations of a product or manufacturing line is the first and most important point. As there is more data on the problem, the sooner one can find a solution.

## GASIREA SOLUTIEI OPTIME

In urma identificarii problemelor si a necesitatilor se incepe un proces de cercetare si dezvoltare de idei pentru rezolvarea problemelor clientului. Pentru gasirea solutiei optime este nevoie de lucru in echipa, expertiza in domeniul industrial, inginozitate si nu in ultimul rand creativitate. Imbinarea acestor calitati in proportii echilibrate este reteta noastra in a gasi cele mai bune solutii tehnice.

## FINDING THE OPTIMAL SOLUTION

After identifying problems and needs begins a process of research and development of ideas for solving customer problems. In order to find the optimal solution, teamwork is needed industrial expertise, ingenuity and, last but not least, creativity. The combination of these qualities in balanced properties is our recipe for finding the best technical solutions.



# SERVICIIL SERVICES

## DEZVOLTARE SI IMPLEMENTARE

O idee care nu este pusa in aplicare nu poate rezolva nici o problema. De aceea capacitatea de productie a companiei, utilajele , masinile si expertiza oamenilor care le opereaza ne stau la dispozitie pentru a pune in aplicare si a dezvolta masinile speciale sau piesele necesare rezolvarii problemelor identificate in prima etapa. Freze CNC in 5 axe, Strunguri, masini de electroeroziune si nu numai, ne ajuta sa dezvoltam cele mai complexe sisteme de automatizare.

## DEVELOPMENT AND IMPLEMENTATION

An idea which is not implemented cannot solve any problem. That's why the production capacity of the company, the machinery and the expertise of the people operating them are at our disposal in order to implement and develop special machines or parts necessary for solving the problems identified in the first step. 5 axes CNC milling machines, lathes machines, electroerosion machines, and many others help us to develop the most complex automation systems.



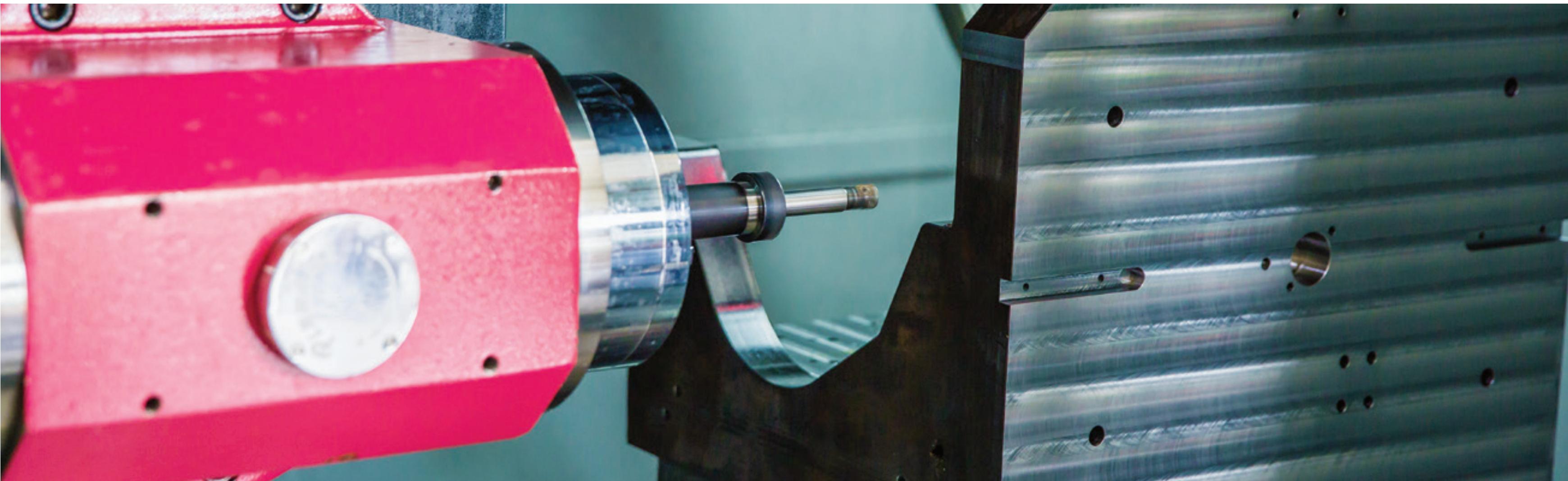
Acoperim o gama largă de servicii de la proiectare și realizare de sisteme și mașini automate, dispozitive de strunjit, găurit, frezat, montaj, control, mașini speciale, sisteme de transfer pana la prelucrari prin aşchiere repere frezate, repere strunjite, repere complexe, matrițe și stanțe.

We cover a wide range of services from the design and implementation of machines and automated systems, devices for turning, milling, drilling, assembly, controlling, special machines, transfer systems up to processing of milling parts, turning points, complex parts, molds and complex stamps.

Realizăm pentru clienții noștri repere obținute prin strunjire, frezare, rectificare, tăiere cu fir, electroeroziune, repere complexe, unicate, în serii mici sau chiar mijlocii și mari. Toate piesele sunt ajustate, debavurate și controlate calitativ înainte de livrare.

We make for our customers parts obtained by turning, milling, rectification, wire cuts, electroerosion, complex parts, unique, in small series or even medium and large series. All parts are adjusted, deburred and quality controlled before delivery.





#### PROIECTARE

Experienta in proiectare de peste 14 ani, cumulata prin proiecte pentru companii din Germania si Romania, ne recomanda ca specialist in proiectarea masinilor complexe, a dispozitivelor complexe si a liniilor de fabricatie. Principalii nostri clienti fiind din industria auto.

#### DESIGN

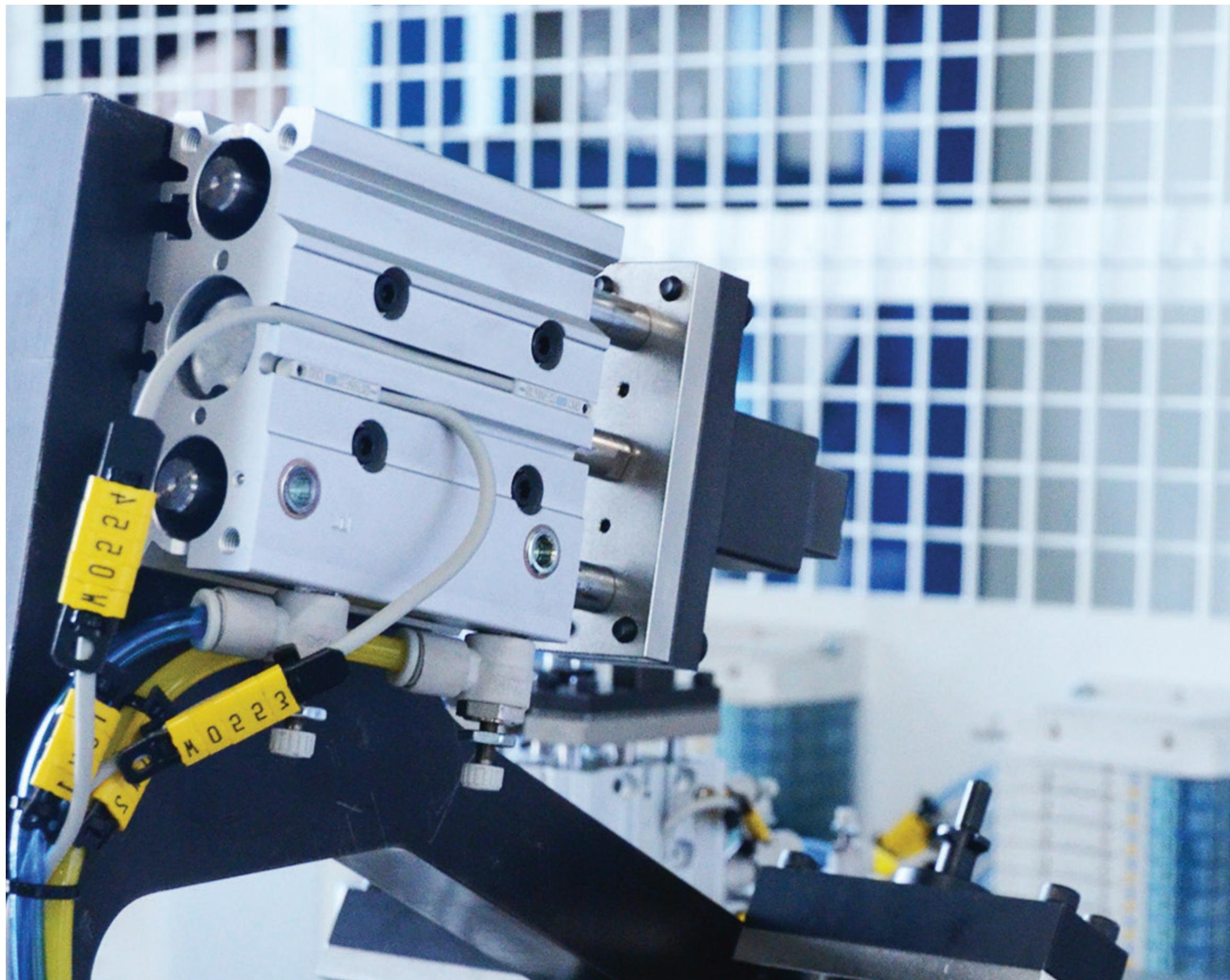
The experience in design of over 14 years, cumulated through projects for companies from Germany and Romania, recommend us as a specialist in the design of complex machinery, complex devices and production lines. Our main clients being in the automotive industry.

#### SOLUTII DE AUTOMATIZARI

In realizarea de masini speciale cu actionare hidraulice, pneumatiche, servo-electrice sau de solutii la cheie masina-dispozitiv-scuale-program pentru productia de serie mare si masă in prelucrari mecanice respectam urmatoarele principii, in primul rand satisfactia clientului, si intotdeauna siguranta si calitatea.

#### AUTOMATION SOLUTIONS

In making of special machines with hydraulic, pneumatic, servo-electric drive or turn-key machine-device-tools-software for mass production and in mechanical processing, we follow the following principles, first of all, customer satisfaction, and always safety and quality.



#### **PRELUCRARI MECANICE**

Detinem o gama largă de echipamente cu care putem realiza repere obținute prin strunjire, frezare, rectificare, tăiere cu fir, electroeroziune, repere complexe, unicate, în serii mici sau chiar mijlocii și mari. Toate piesele sunt ajustate, debavurate și controlate calitativ înainte de livrare.

#### **MECHANICAL PROCESSING**

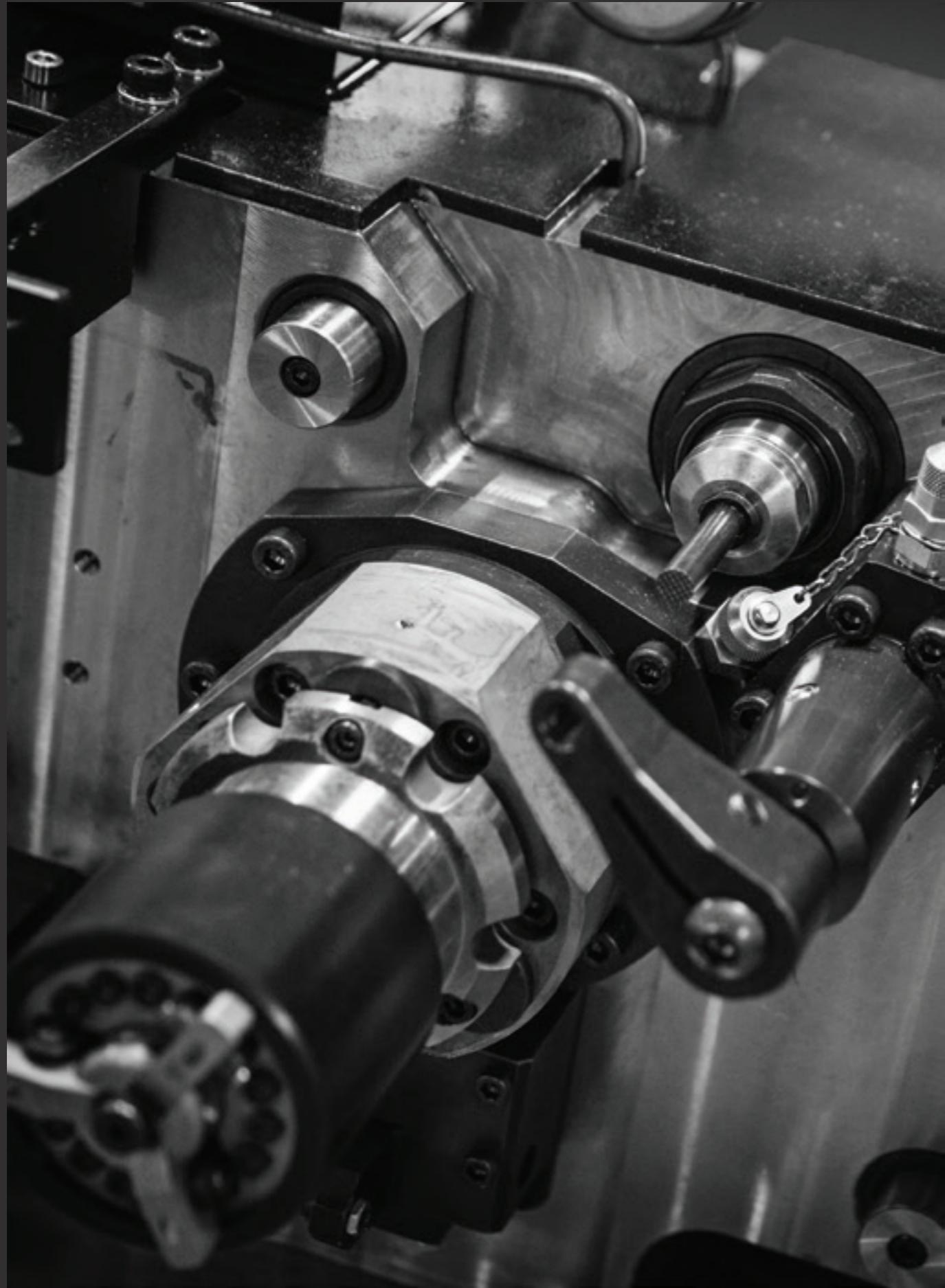
We have a wide range of equipment with which we can achieve turning parts, milling, grinding, wire cutting, electroerosion, complex parts, unique, small series, even medium and large series. All parts are adjusted, deburred and qualitatively controlled before delivery.

#### **SOLUTII COMPLETE PENTRU PROBLEME COMPLEXE**

1. Dispozitive sudură și prelucrări mecanice
2. Dispozitive masură și control
3. Prelucrări mecanice
4. Matrițe și stanțe
5. Piese unicat sau serie
6. Re-engineering
7. Soluții la cheie
8. Mașini speciale
9. Retrofit de mașini și utilaje

#### **COMPLETE SOLUTIONS FOR COMPLEX PROBLEMS**

1. Devices for welding and mechanical processing
2. Measuring and control devices
3. Mechanical processing
4. Molds and stamps
5. Unique parts or series parts
6. Re-engineering
7. Key solutions
8. Special machines
9. Retrofit of machines and equipment



## ECHIPAMENTE SI DISPOZITIVE EQUIPMENT AND FACILITIES



**PINNACLE BX900**

1500 x 900 x1 000

Masina frezat in 5 axe / 5 Axis milling machine



**SPINNER U-620**

600 x 500 x 800

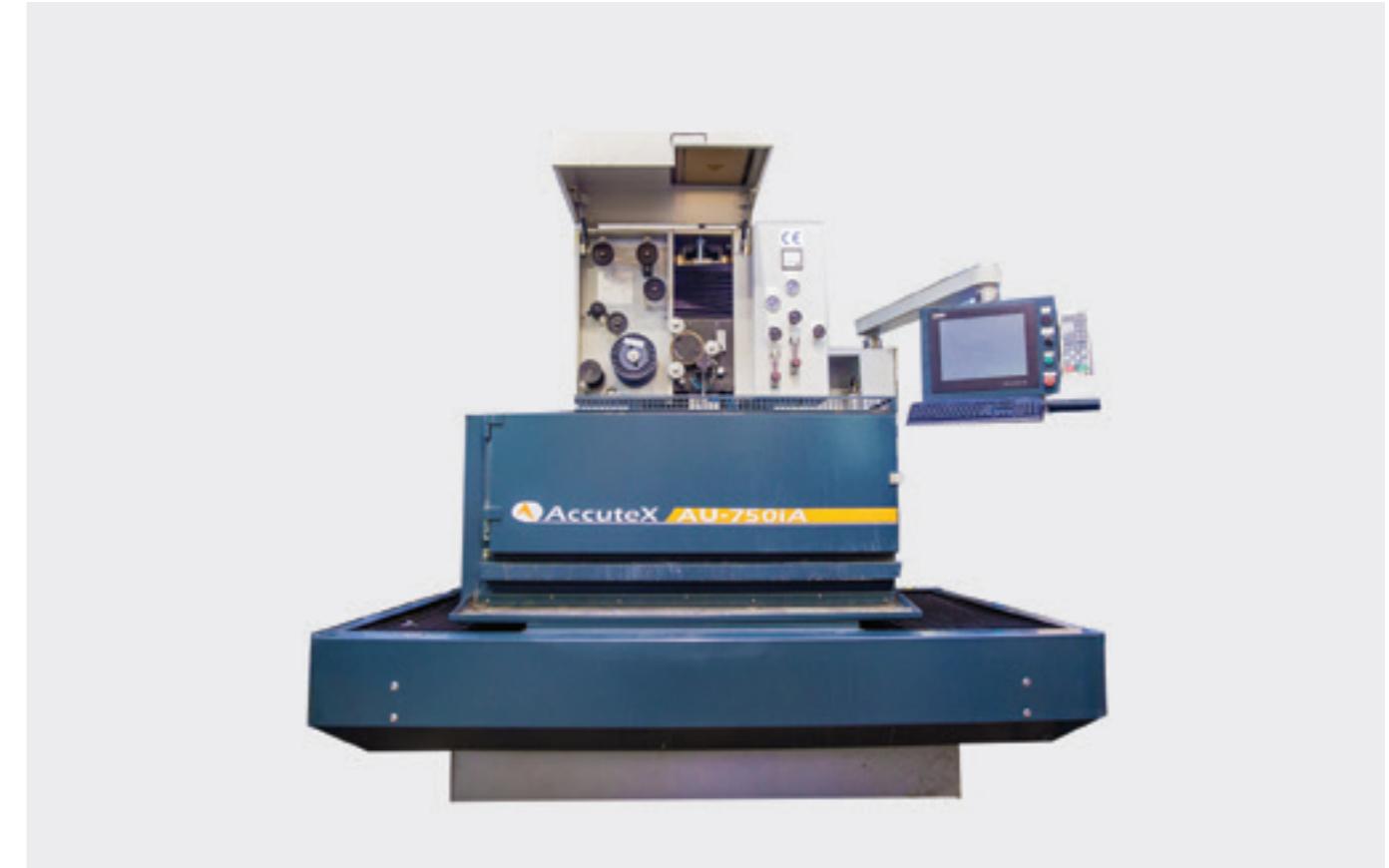
Masina frezat in 5 axe / 5 Axis milling machine



**PARAGON GU-32100NC**

320 x 1 000

Masina rectificat rotund / Round grinding machine



**ACCUTEX AU-750iA**

750 x 500 x 250

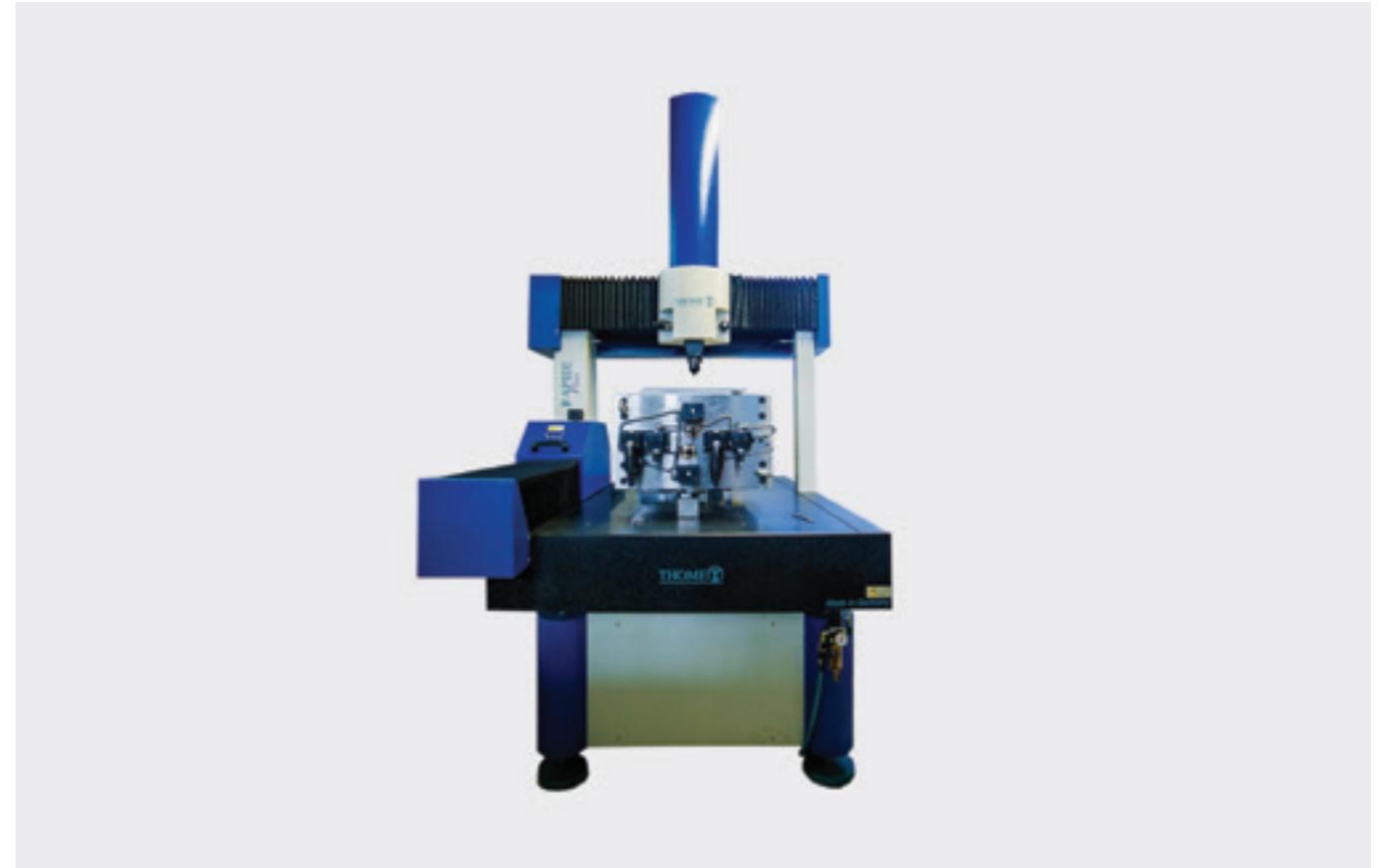
Masina eroziune fir / Wire eroding machine



**PLASMA CUTTING MACHINE**

3000 x 1500

Masina debitat cu plasma high definition  
High definition plasma cutting machine



**THOME RAPID PLUS**

600 x 700 x 1000

Masina masurat 3D / 3D Measuring machine



## PROIECTE DE REFERINTA REFERENCE PROJECTS

## UR ROBOTS

Din vara acestui an firma Ipad a devenit integrator certificat Universal Robots, avand deja proiecte in derulare cu acest tip de roboti.

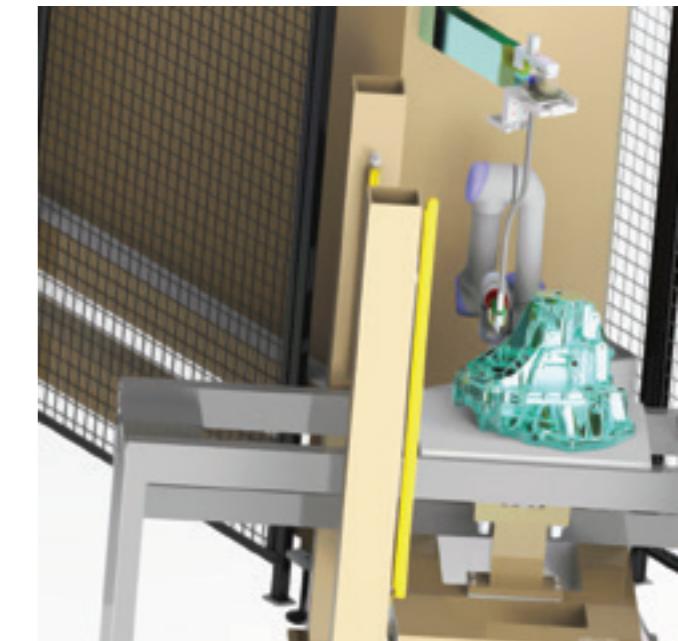
Unul dintre proiecte a avut ca si target reducerea timpului de ciclu pentru introducere a 8 suruburi pe conturul a doua tipuri de ansamblu de piese intr-o linie de asamblare . Beneficiarul o firma foarte bine cunoscuta la noi in tara in productia de automobile a imbratisat ideea noastră de a folosi un robot colaborativ UR5 avand in vedere necesitatea de a executa foarte repetitiv o sarcina implicand miscarea complexa.O construcție destul de simplă formată din 2 brațe, unul pentru robot și indexul paletei pe care vine piesa și cel de-al 2-lea pentru alimentatorul de suruburi, o zonă de safety asigurată de bariere optice, și 2 camere pentru verificarea depunerii suruburilor.

Cel de-al 2-lea proiect cu robot colaborativ, il vom folosi chiar in cadrul firmei noastre pe productia de serie pentru controlul pieselor. Avand in vedere numarul tot mai mare de comenzi si cerintele clientilor de control 100% a produsului finit, unui om i-ar fi imposibil sa execute aceasta sarcina. Dupa cateva discutii si studii, am ajuns la concluzia ca este mult mai eficient sa folosim un robot pentru evitarea erorilor umane si accelerarea eficientei productiei. Bancul de lucru este format dintr-un robot colaborativ UR5, si un sistem optic de masurare a pieselor. Pieselete vin asezate pe palete iar robotul executa operatia de masurare si sortare a pieselor.

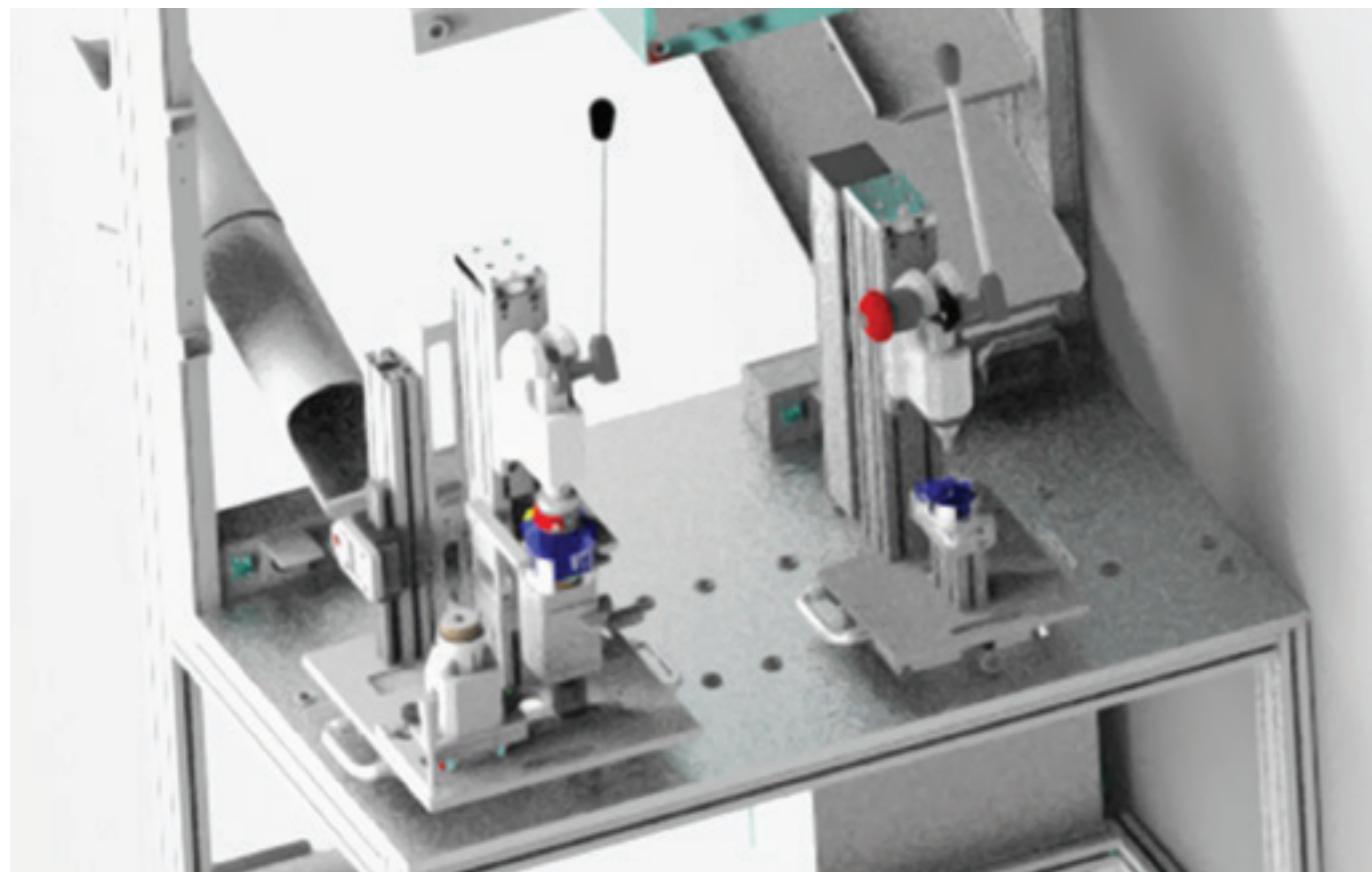
Since the summer of this year, Ipad has become a Universal Robots certified integrator with already running projects with this type of robots.

One of the projects had as target the cycle time reduction for the introduction of 8 screws on the contour of two types of groups of parts in an assembly line. The beneficiary, a very well known company in our country in the production of automobiles embraced our idea of using a collaborative robot UR5, given the need to execute very repetitive task involving complex motion. A fairly simple construction consisting of 2 arms one for robot and index scoop on which comes the workpiece and the second one for the screw feeder, a safety area is provided by optical barriers, and 2 chambers for checking the screws.

For the second collaborative robot project, we will use it within our company on serial production for track control. Considering the increasing number of orders and 100% customer control requirements for the finished product, a man would be unable to perform this task. After some discussions and studies, we came to the conclusion that it is more efficient to use a robot to avoid human errors and speed up production efficiency. The workbench consists of a collaborative robot UR5, and an optical measuring system for the parts. The pieces are placed on the pallets and the robot performs the operation of measuring and sorting the pieces.

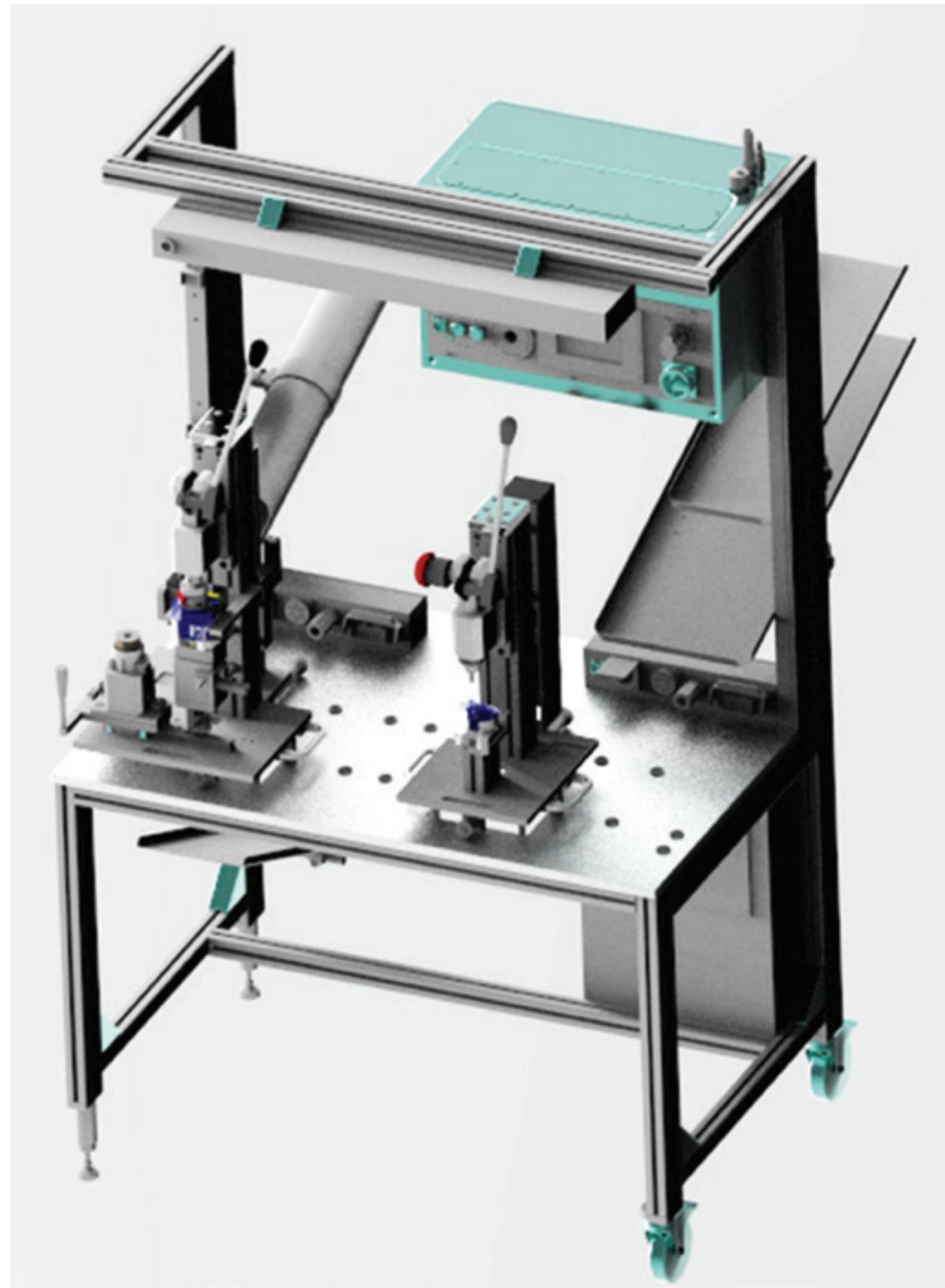


**STATIE DE ASAMBLARE MANUALA PRIN PRESARE**  
**MANUAL ASSEMBLY BY PRESSING**

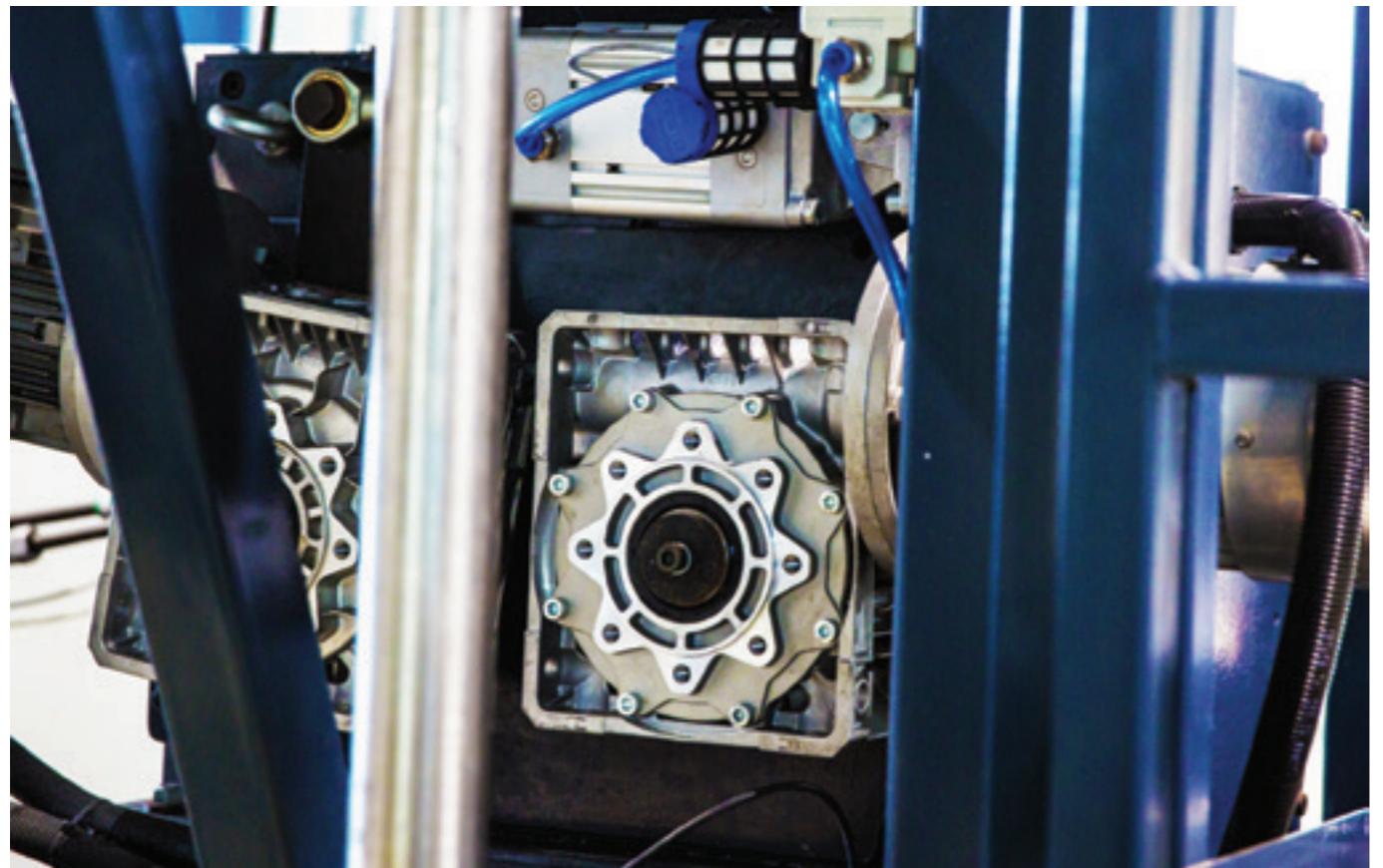


Statie de asamblare manuala prin presare cu presa schmit. Post de lucru ce permite asamblarea manuala a 2 sau mai multe piese cu gestiunea acestora. Statie ce nu permite interventia erorilor umane. In lipsa unei piese sau a unei operatii sarite de catre operatorul uman, masina declara piesa NOK sau nu permite continuarea activitatii de montaj. Operatii interblocate(sistem de control si monitorizare cu camere video si PLCs).

Manual assembly by pressing with schmit press. A Work station that allows the manual assembly of 2 or more parts with their management. Station that does not allow for human errors. In the absence of a piece or a jump operation by the human operator, the machine declares the part NOK or does not allow the mounting activity to continue. Interlocking operations (control and monitoring system with video cameras and PLCs).

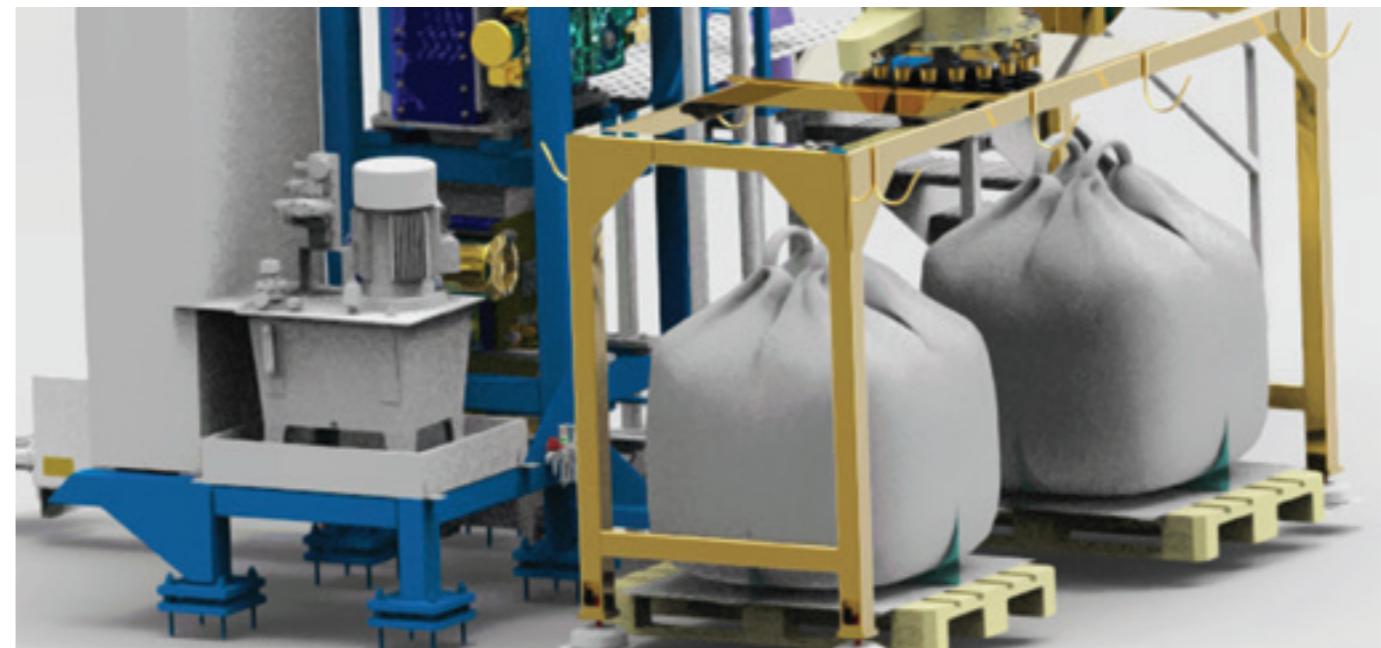
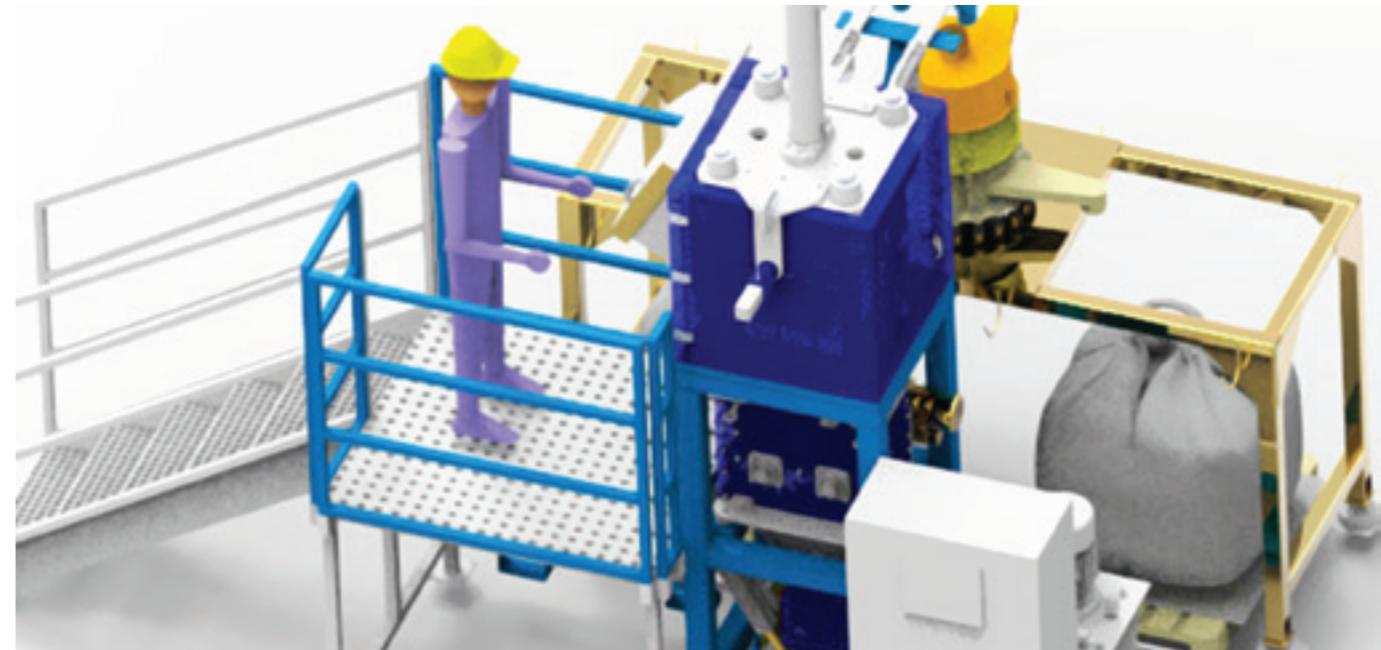


**SISTEM RECICLARE MAGNEZIU DIN ZGURA**  
**MAGNESIUM RECYCLING SYSTEM FROM SLAG**

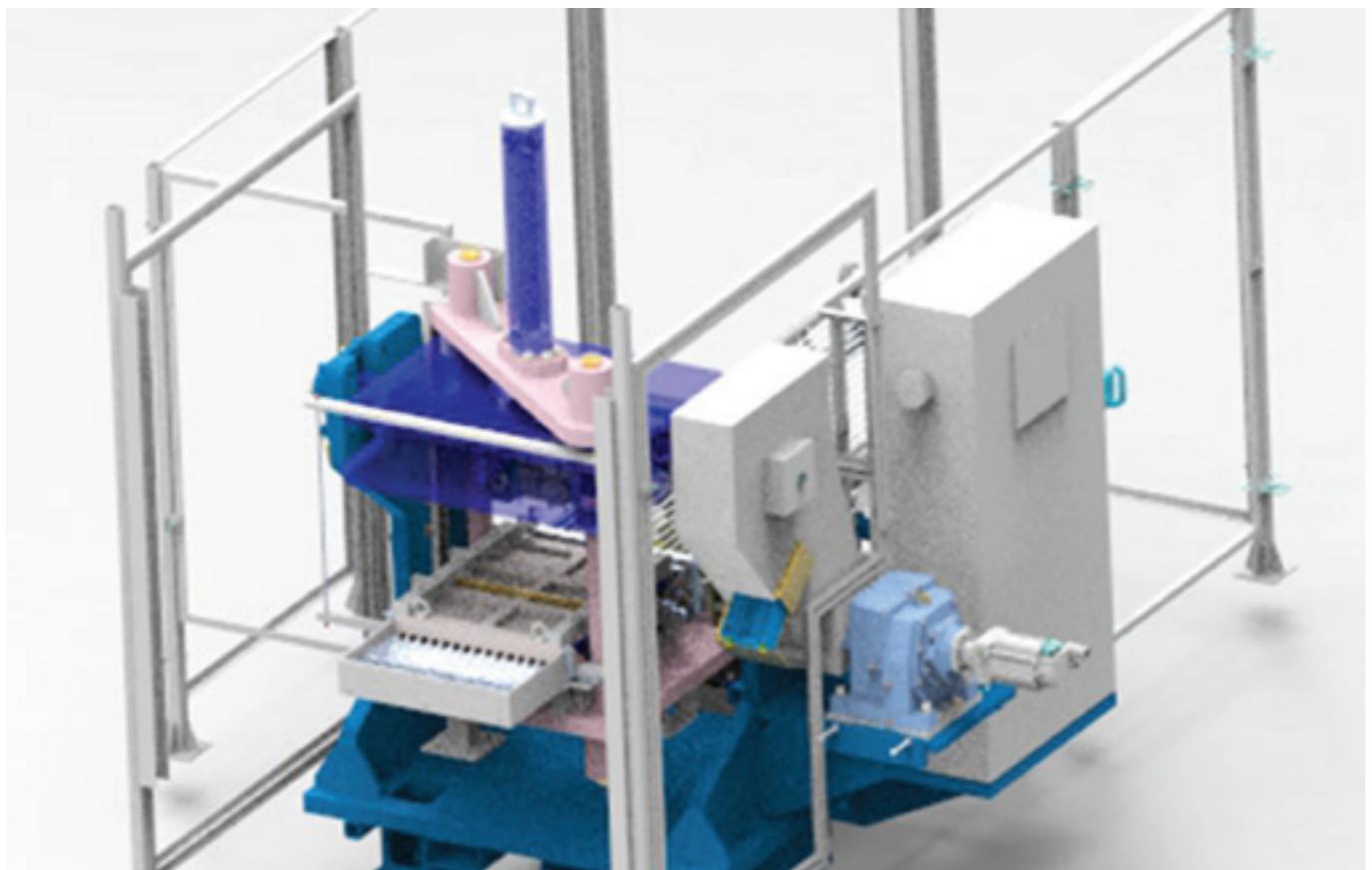


Sistem reciclare magneziu din zgura rezultata in urma turnarii magneziului se va recicla cu ajutorul acestui utilaj care este compus dintr-o presa hidraulica. Presa hidraulica care va presparge blocurile de zgura, acestea urmand a fi transferate intr-o moara cu valturi care va sparge zgura rezultata in parti mai mici. Din moara cu valturi materialul rezultat este transfert intr-o moara cu ciocane care va reduce diametrul materialului la 3 mm, de aici materialul este transferat cu ajutorul unui conveior tubular cu lant intr-un separator cu site, aici este separat in functie de granulatie.

Magnesium slag recycling system The slag resulting from the casting of magnesium will be recycled using this machine which is composed of a hydraulic press. the hydraulic press that will pre-block the slag blocks, and they will be transferred to a rolling mill that will break the resulting slag into smaller parts. From the roller mill, the resulting material is transferred to a hammer mill that will reduce the diameter of the material to 3 mm, hence the material is transferred using a chain tubular conveyor in a site separator, here is separated according to the granulation.

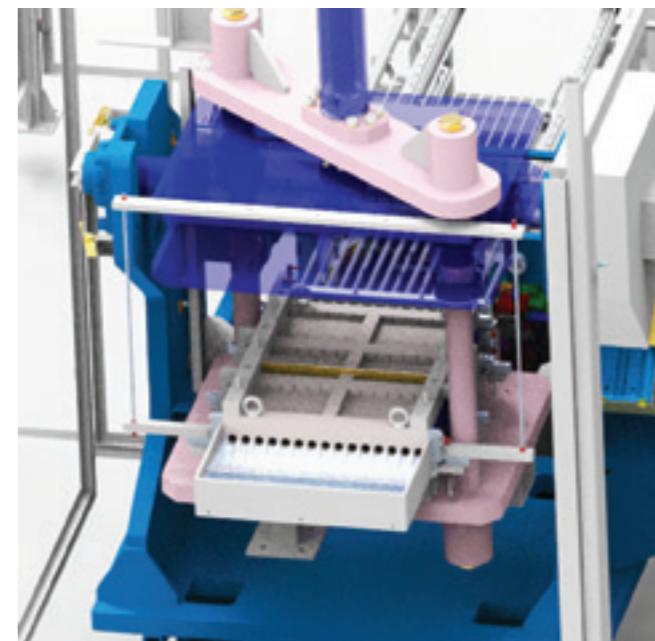
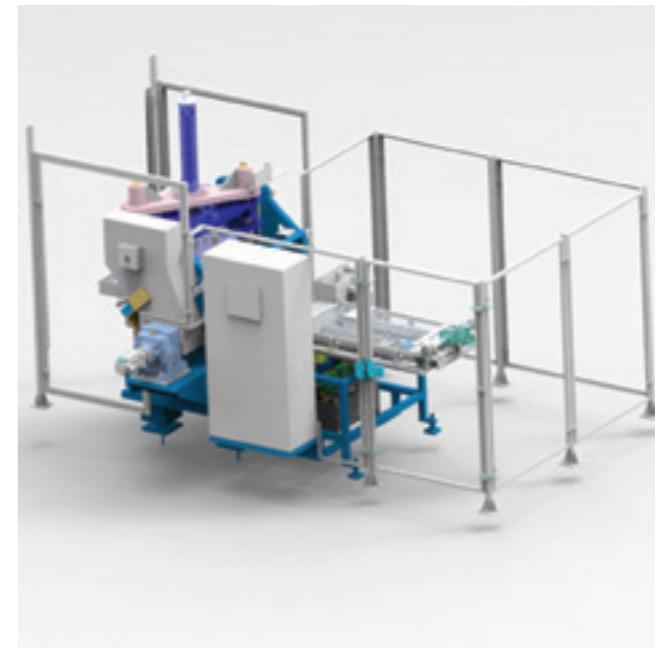
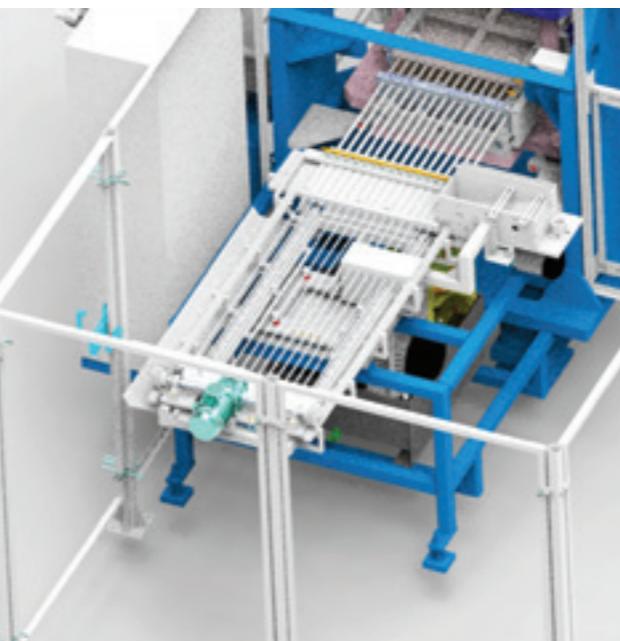
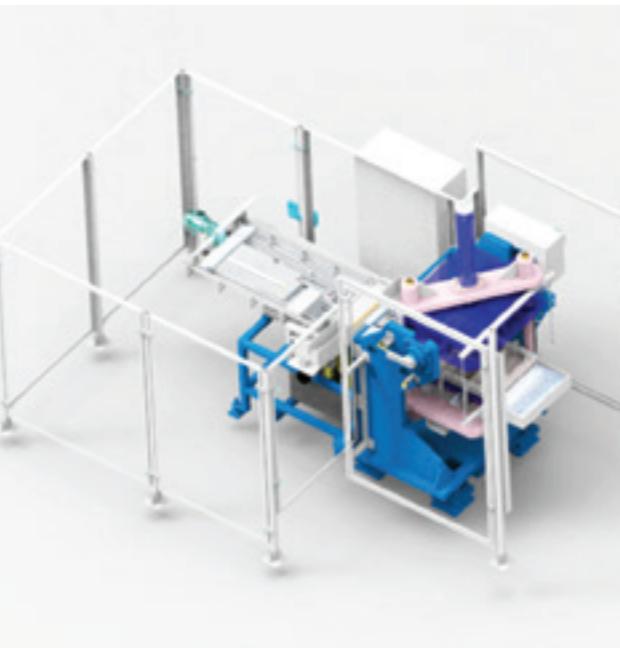


**PRESA TURNAT MAGNEZIU**  
**MAGNEZIUM CASTING PRESS**



Sistem turnare magneziu semi automat. Alimentarea matritei cu inserturi se realizeaza automat, turnarea materialului topit se face manual. Piesele finale sunt evacuate automat din matrita.

Semi-Automatic Magnesium casting system. Feeding the mold with inserts is done automatically. Pouring of molten material is done manually. The final parts are automatically discharged from the mold.

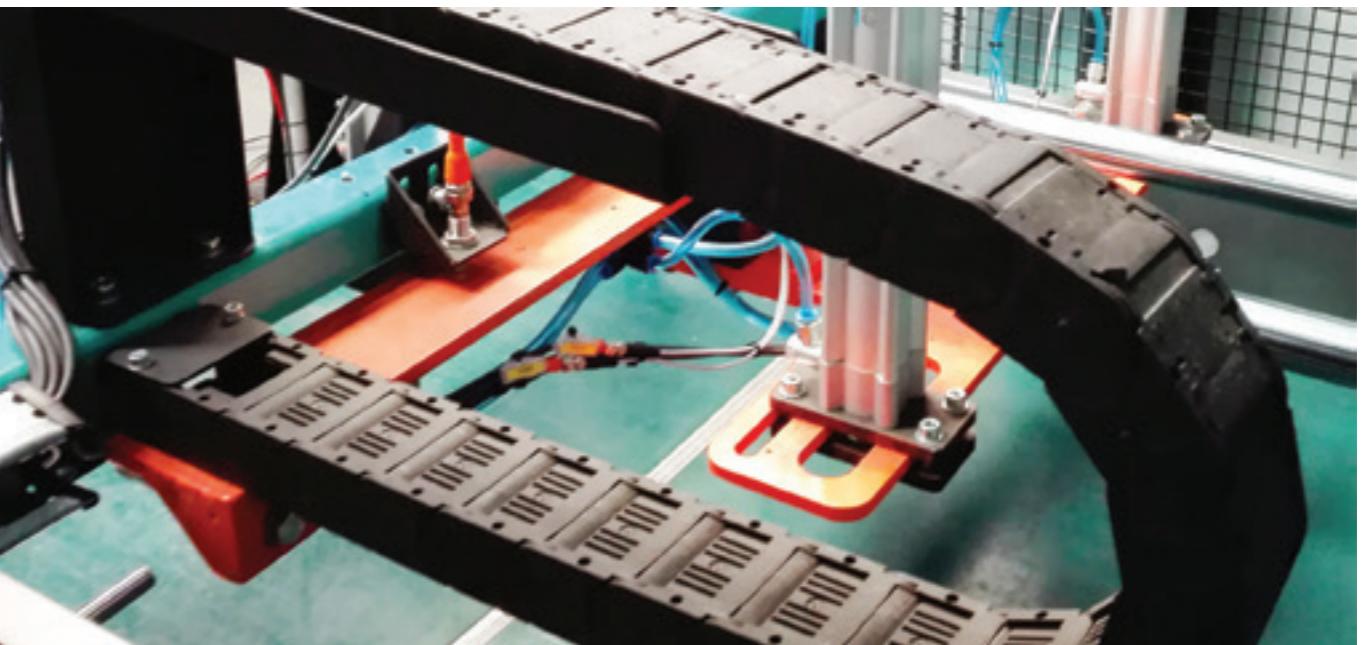


**SISTEM DE TRANSPORT SI STOCARE REZERVOARE PN**  
**PN TANKS TRANSPORT AND STORAGE SYSTEM**

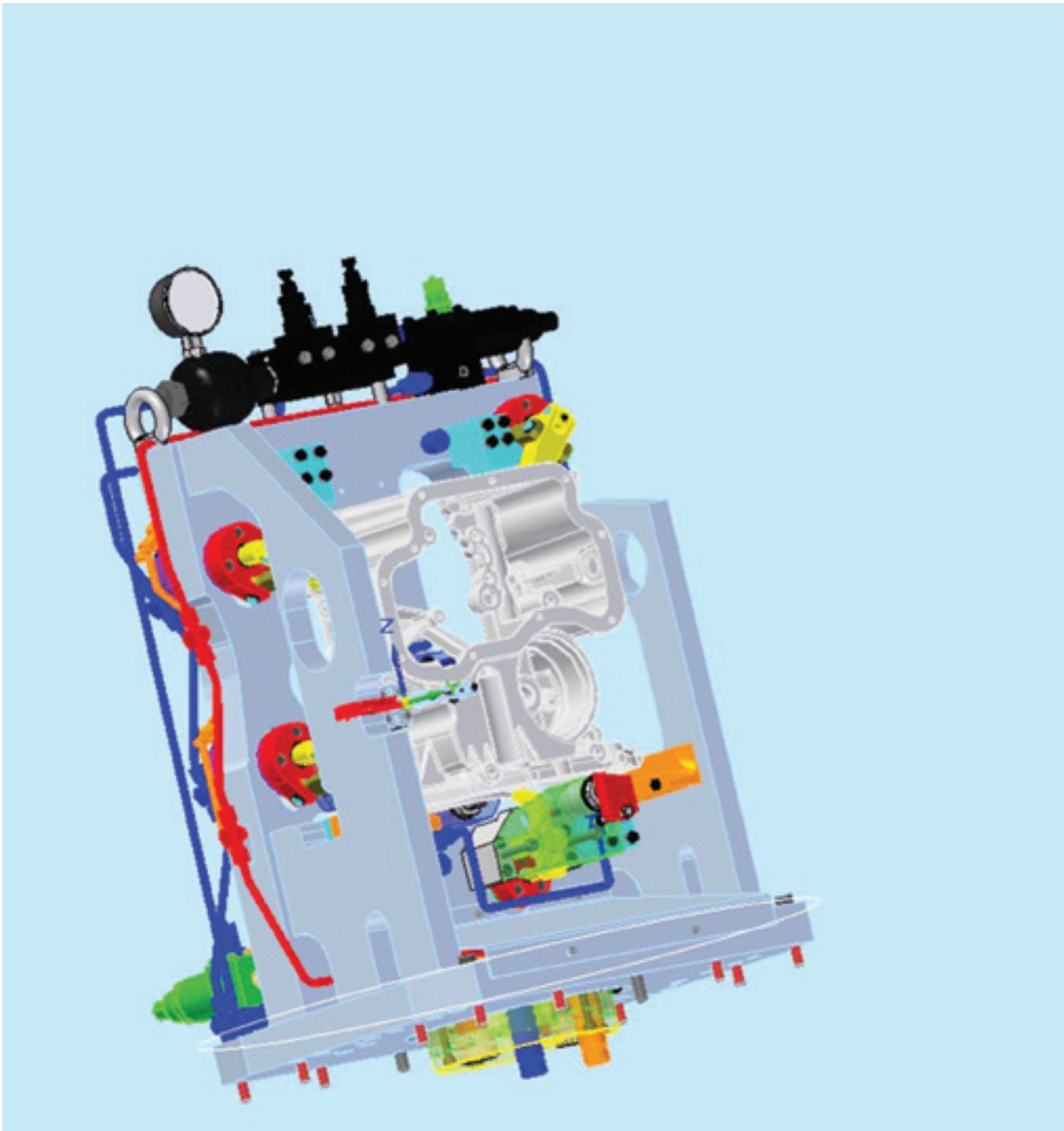


Sistem de transport si stocare rezervoare PN(paternoster). Este un sistem ce permite stocarea pieselor pe verticala in vederea racirii lor naturale intr-un timp mai mare. Dupa operatia de turnare, debavurare, inainte de operatia de sudare a pieselor este necesara racirea pieselor. Acest lucru se realizeaza in Sistemul Paternoster un buffer de piese ce permite stocarea lor pe verticala si petrecerea unui timp mai indelungat pentru racire.

PN tanks transport and storage system (paternoster). It is a system that allows the parts to be stored vertically for their natural cooling in a longer time. After casting, deburring before the parts welding operation, it is necessary to cool the parts. This is done in the Paternoster System a piece buffer that allows them to be stored vertically and spending a longer cooling time.



DISPOZITIV UZINARE SEMELA  
SEMELA MACHINING TOOL



**CLIENTI**  
**CLIENTS**



**K** **KURRE**  
Metallbau GmbH & Co. KG

**STC**  
STAR TRANSMISSION

**Continental**  
The Future in Motion

 **NOVA GRUP**  
gearing your business

  
**INA**  
**SCHAEFFLER GROUP**  
INDUSTRIAL

 **KAUTEX**  
A Textron Company

**TIMKEN**



[www.ipad.ro](http://www.ipad.ro)  
office@ipad.ro  
+40 248 688 760

