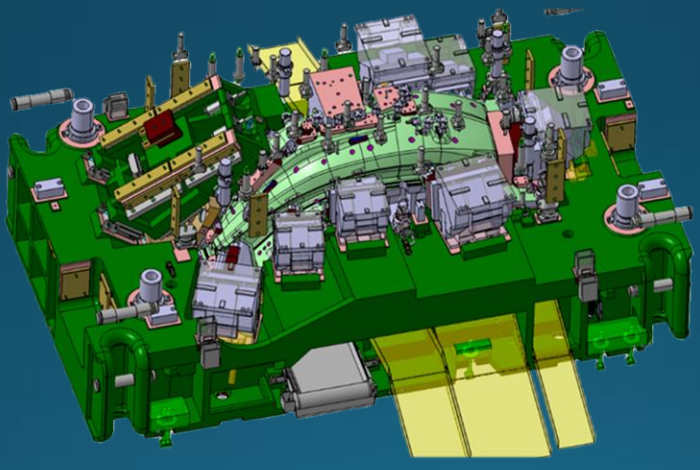
ENGINEERING OFFICE

Solid

DESIGN d.o.o.



"...because hiring the right Designer for the job is crucial!"

Poljski Put II 18, 10000 Zagreb, Croatia, www.solid-design.net

Who we are?

- Solid Design d.o.o. is an engineering office specialized in sheet metal forming. We help our customers with method planning, simulations, process planning, progressive and transfer tool designs, drafting and other related services. Our team has more than 15 years of experience in both development and real-world manufacturing, mainly for the German automotive industry. We have designed stamping tools for all major car manufacturers: VW, Audi, Škoda, Seat, Porsche, BMW, Daimler, GM, Nissan, Toyota, etc.

- In our work we use programs Catia V5-6 and Autoform.

- As a reliable outsourcing partner, we can be a tremendous resource for your business. Having simulation and design under the same roof gives you a one stop shop solution for all your product design needs. We have earned a reputation for helping our customers solve the most complex problems.

What we do?

- Method planning with simulation
- Production flow planning with kinematics
- 3D tool design
- 2D drawings, BOM and data transfer

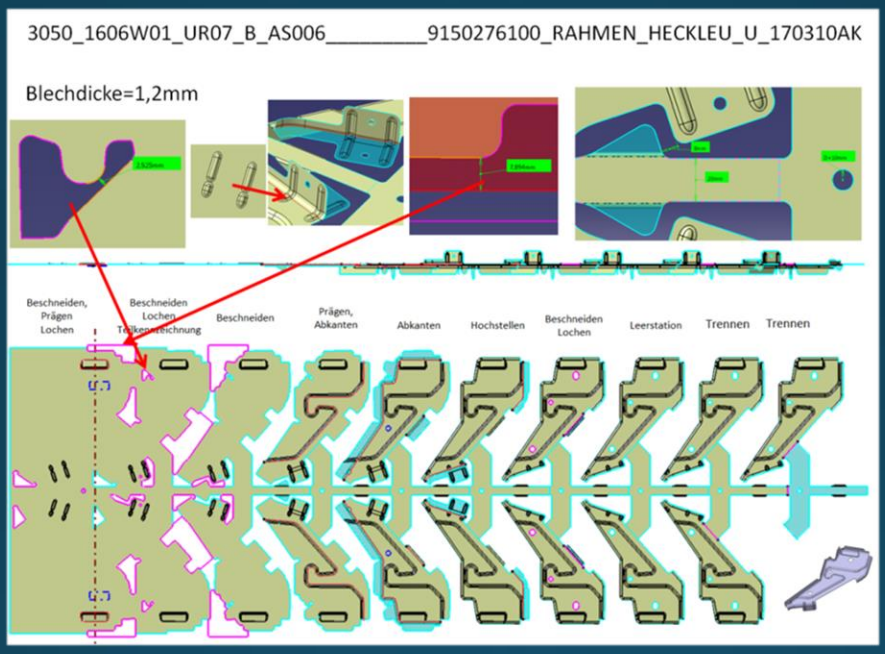
- Our current working capacity is 900 hours per month.
  As business develops, greater working hour capacity is possible.

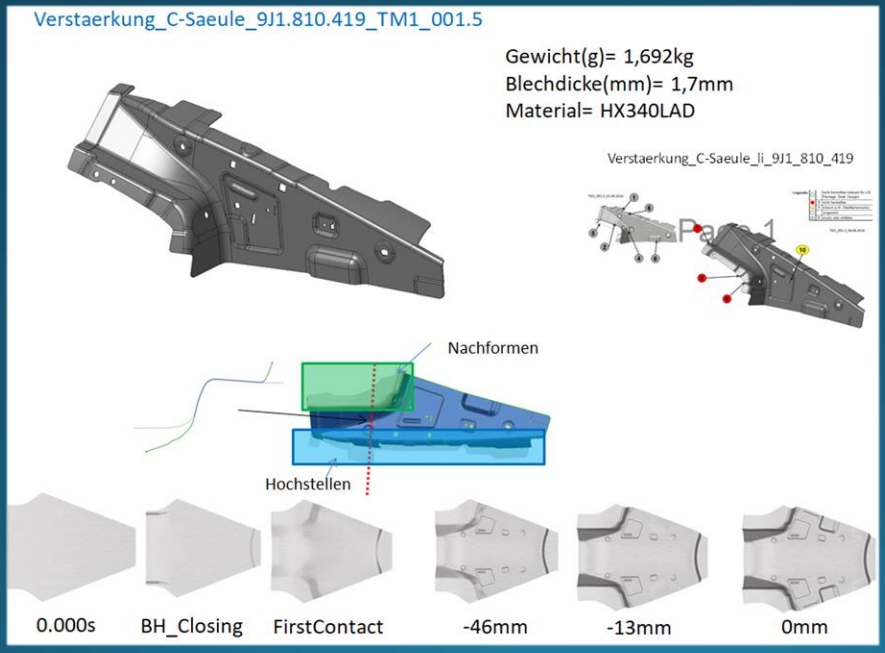
- We speak and write English fluently, but poses German elementary proficiency, so we understand German written standards and protocols without any problems. Cooperation is possible on other languages also with the usage of translation tools.

- If desired, we can complete the order in the BMW Carisma or VWGRCLite environment.

Method planning with simulation

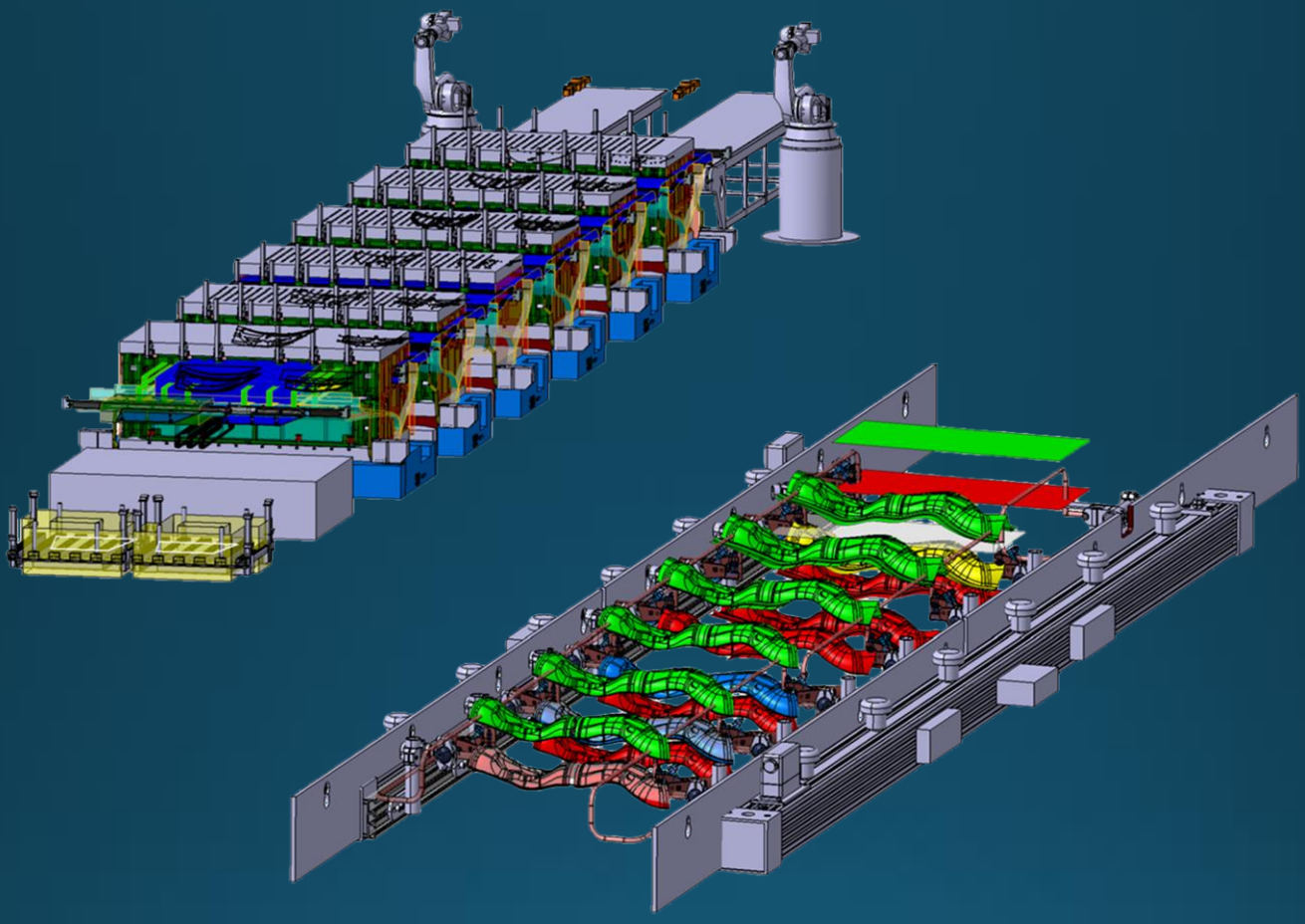
- When planning the method, we determine the necessary work steps, tools and workflow according to the customer's production options. Planning is based on the number and type of presses, their respective number of strokes and the corresponding output. In addition, material utilization must be as high as possible to avoid unnecessary waste. In the case of complex parts, we check the feasibility of the planned processes by simulating them in the AutoForm program. This allows us to avoid all possible procedural errors and create spring-compensated milling surfaces. The simulation of the planned processes guarantees maximum cost and time savings throughout the product development, tool design and tool production phase.





Production flow planning with kinematics

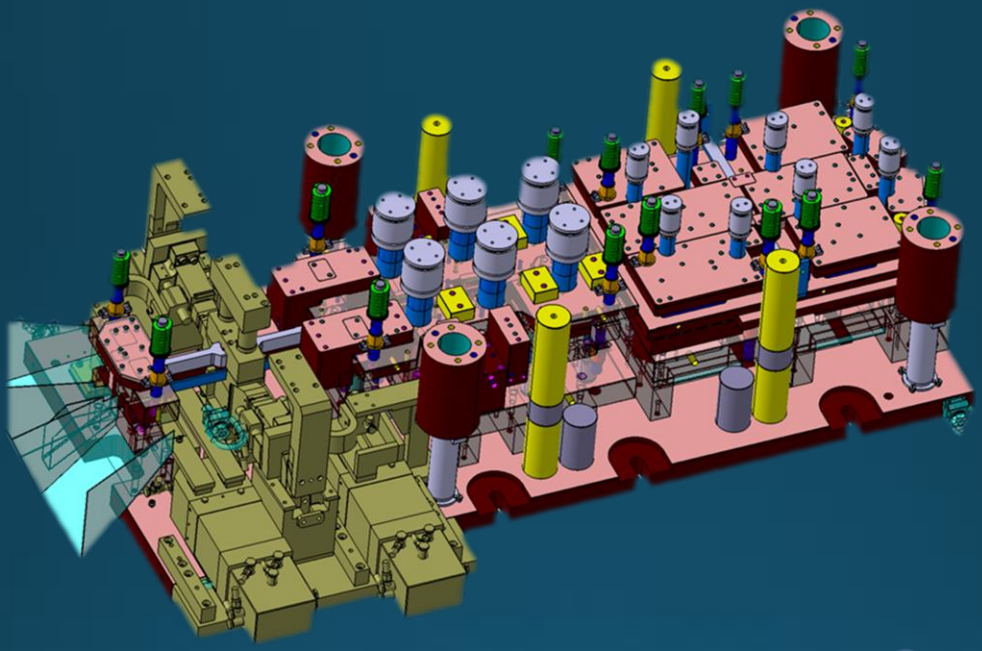
- According to the customer's press specifications, we develop production flow plans and calculate optimal AP axis positions in tools. Later, after the tool design has been completed, the kinematics are checked using the Catia DMU Kinematics Workbench to avoid possible collisions during part production.

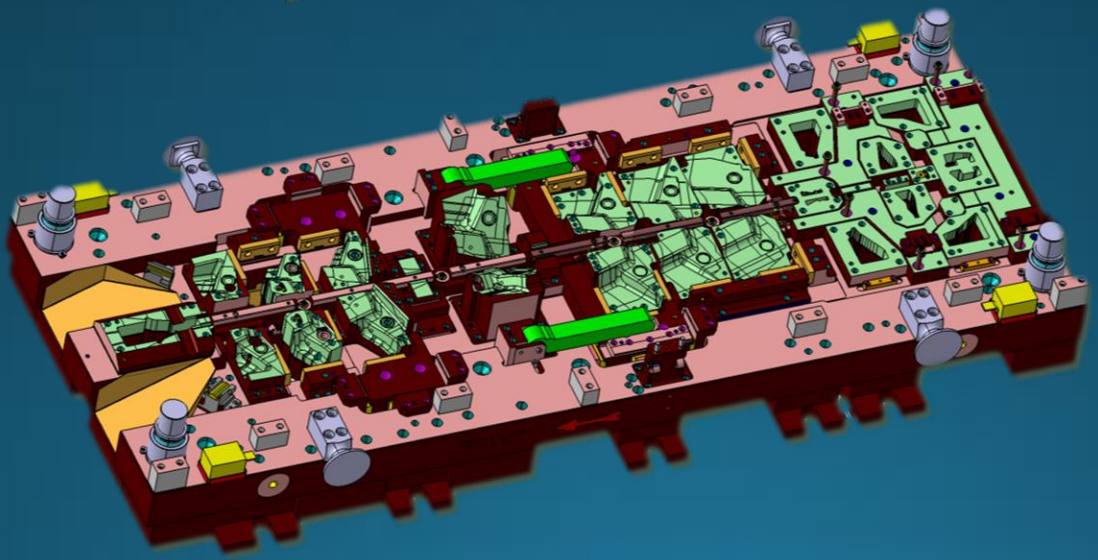


3D tool design

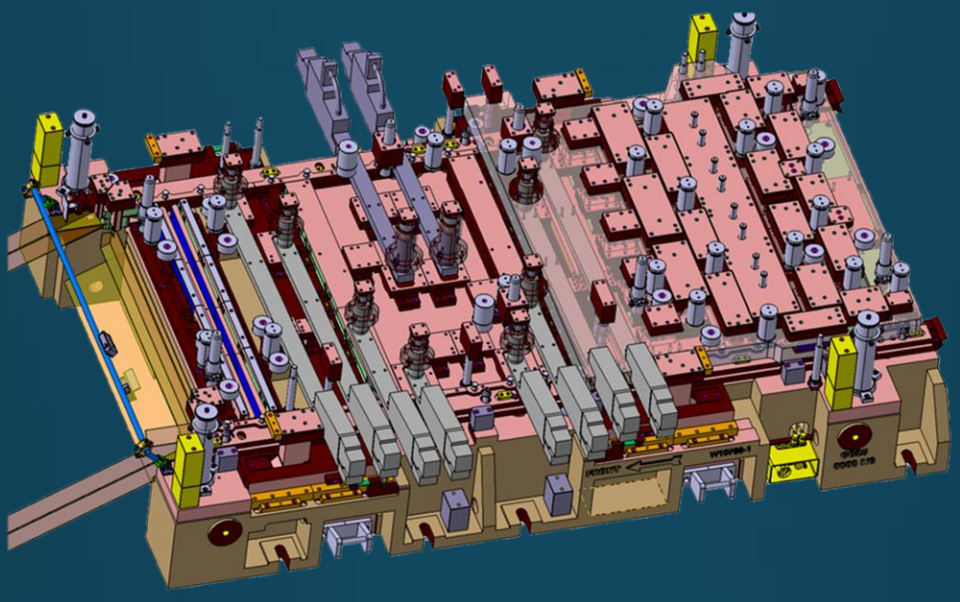
- We design progressive tools for feeders as well as transfer multi-stage tools for fully automatic gripper/suction rod production. When designing, we use our rich experience, customer project specifications and standards. We use standards from all well-known car manufacturers and tool shops: VW standards (Audi, Škoda, Porsche, Seat...), BMW, Daimler, Laepple, Magna, Voestalpine, Schweikert, Gestamp, Tower, etc. We design drawing tools, forming tools, cutting tools, progressive tools as well as tools for tailored blanks.

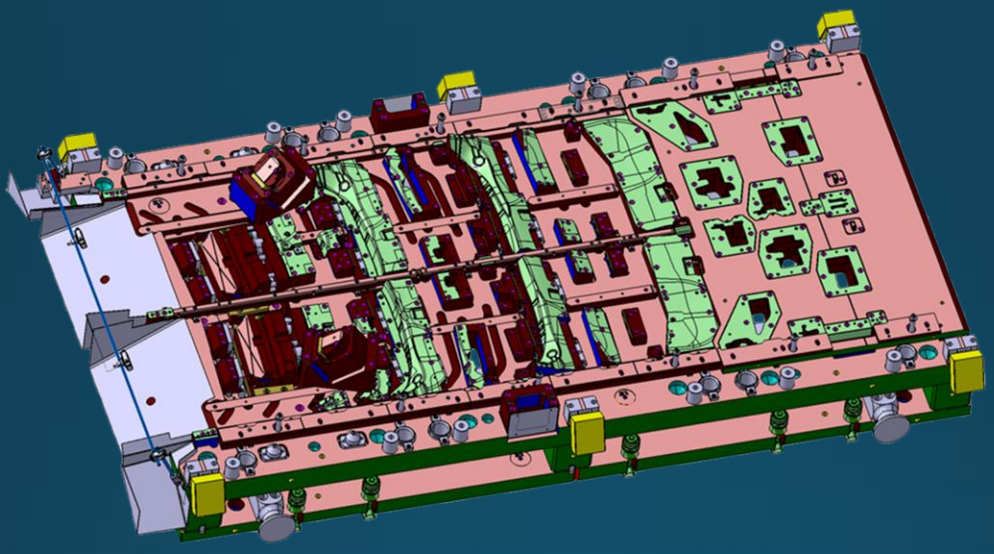
Some of our progressive tool designs

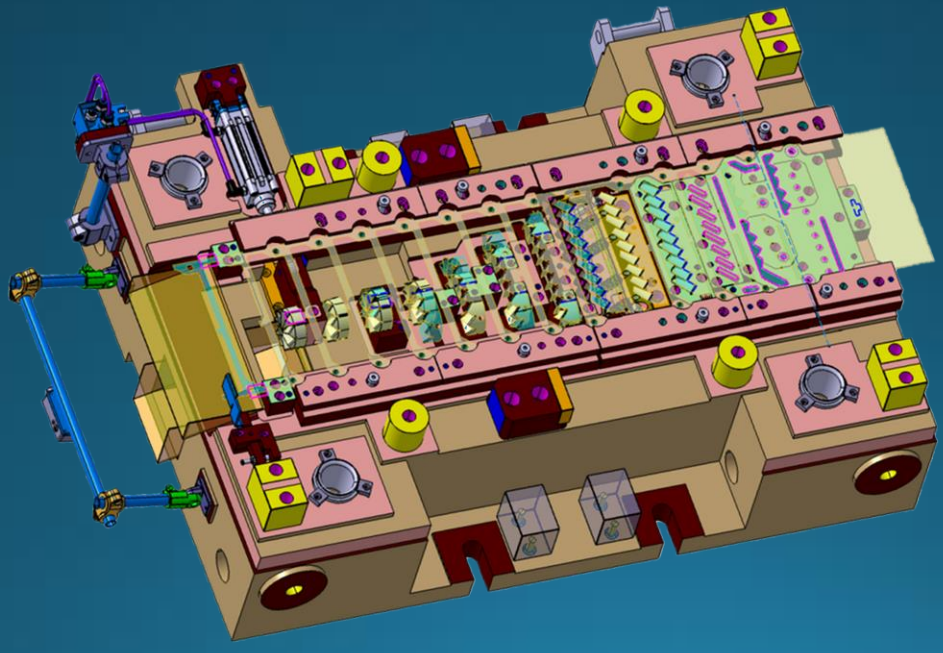




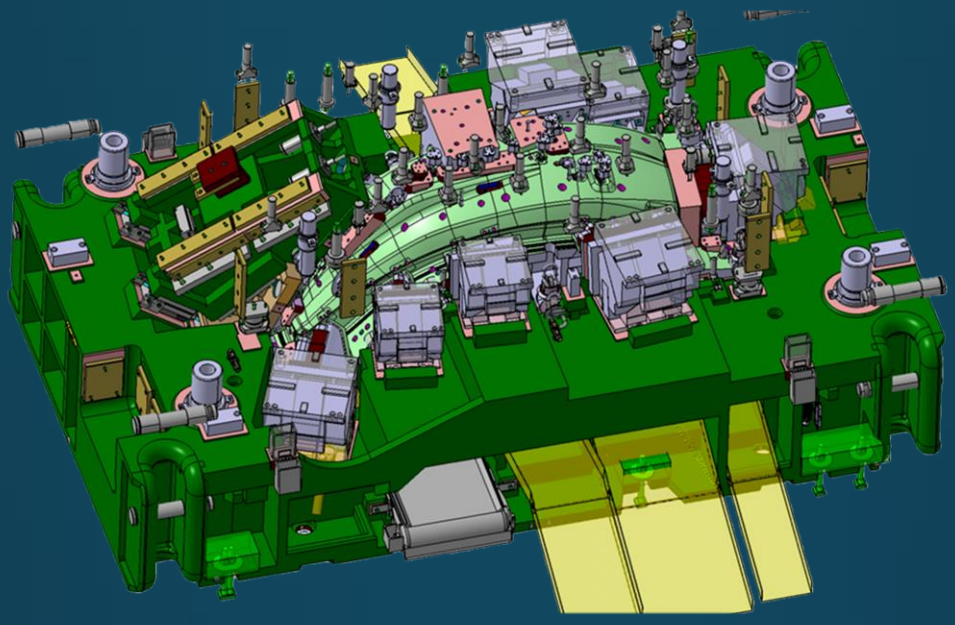
Some of our progressive tool designs

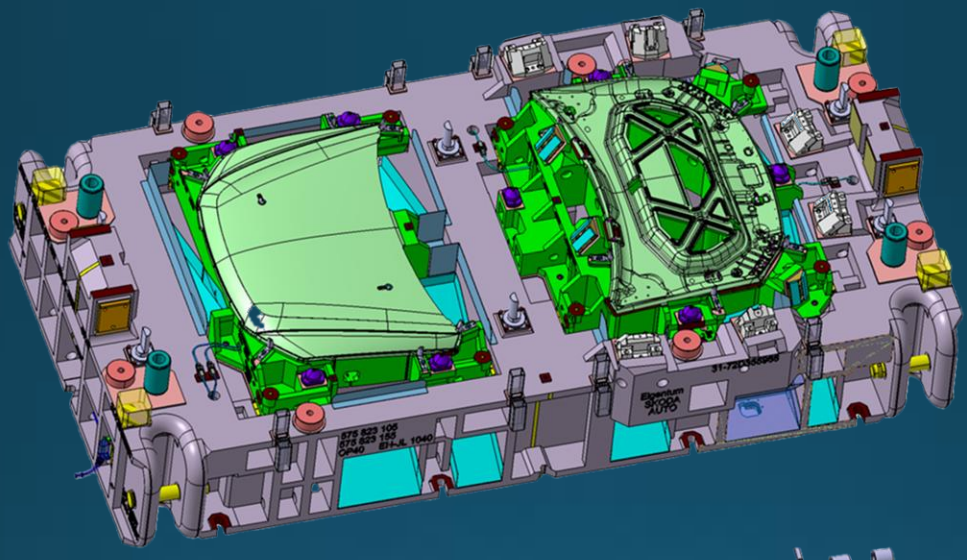


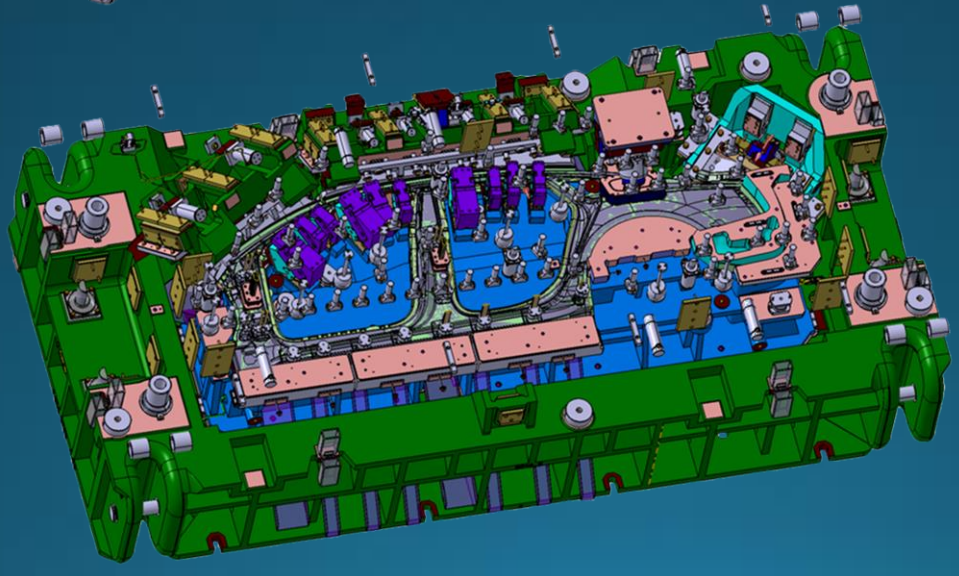




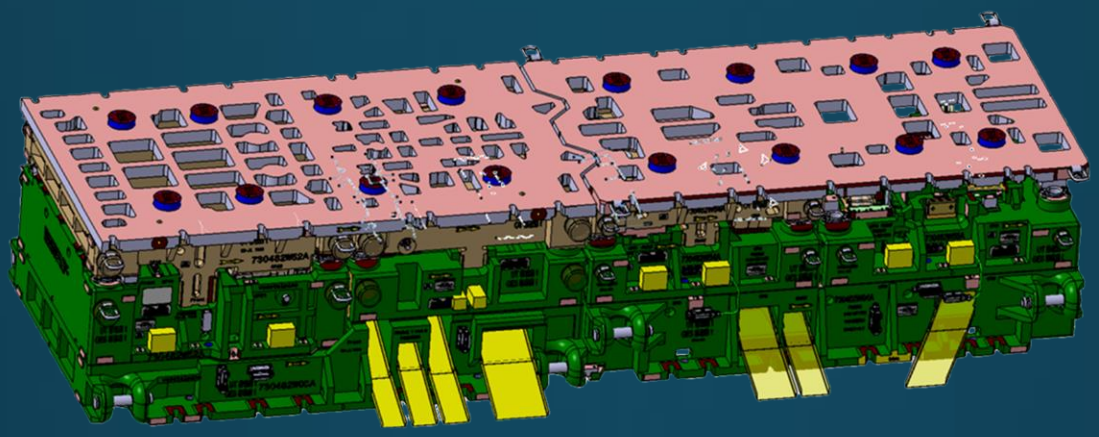
Some of our transfer tool designs

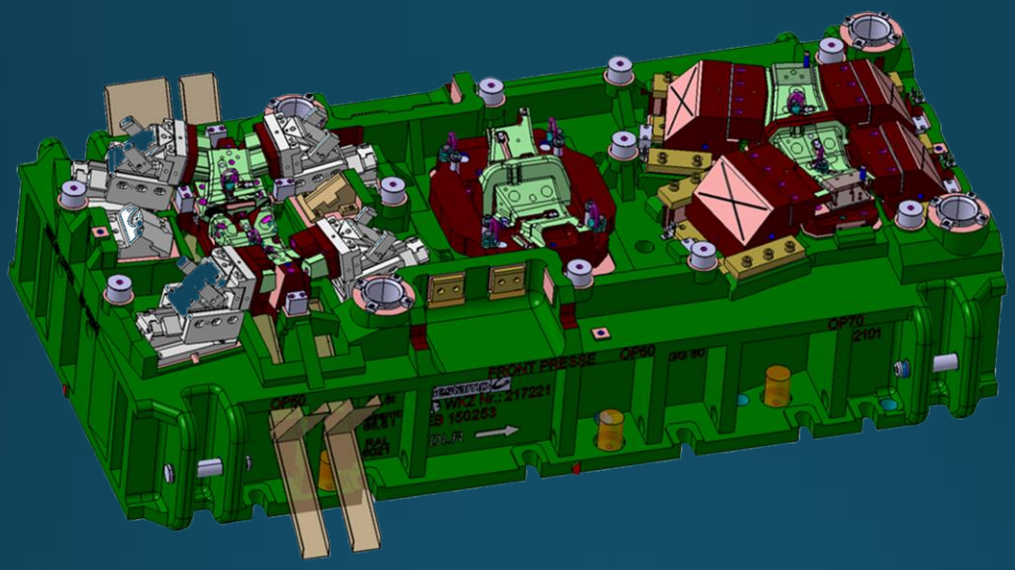






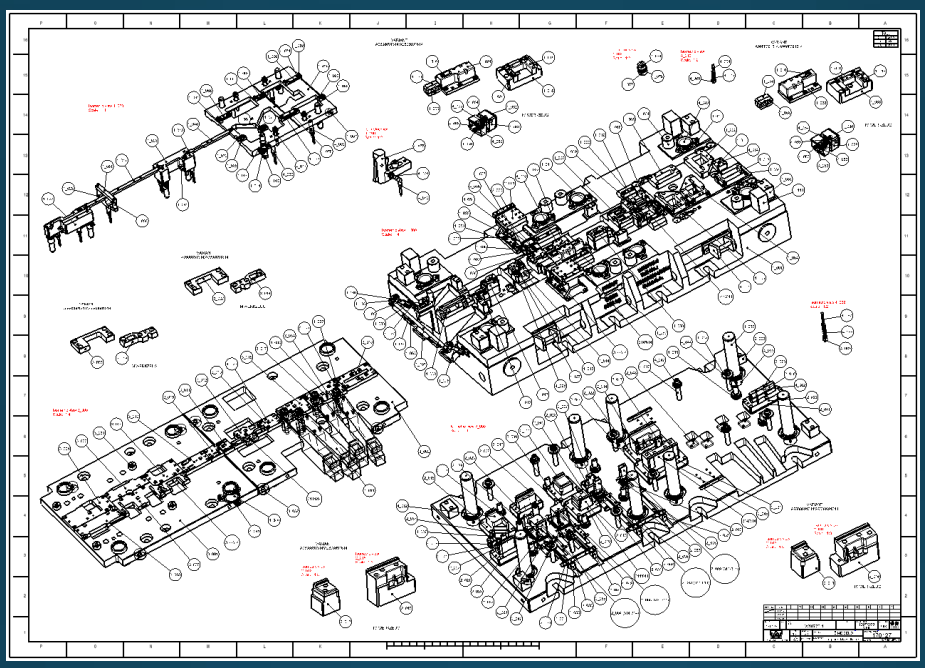
Some of our transfer tool designs

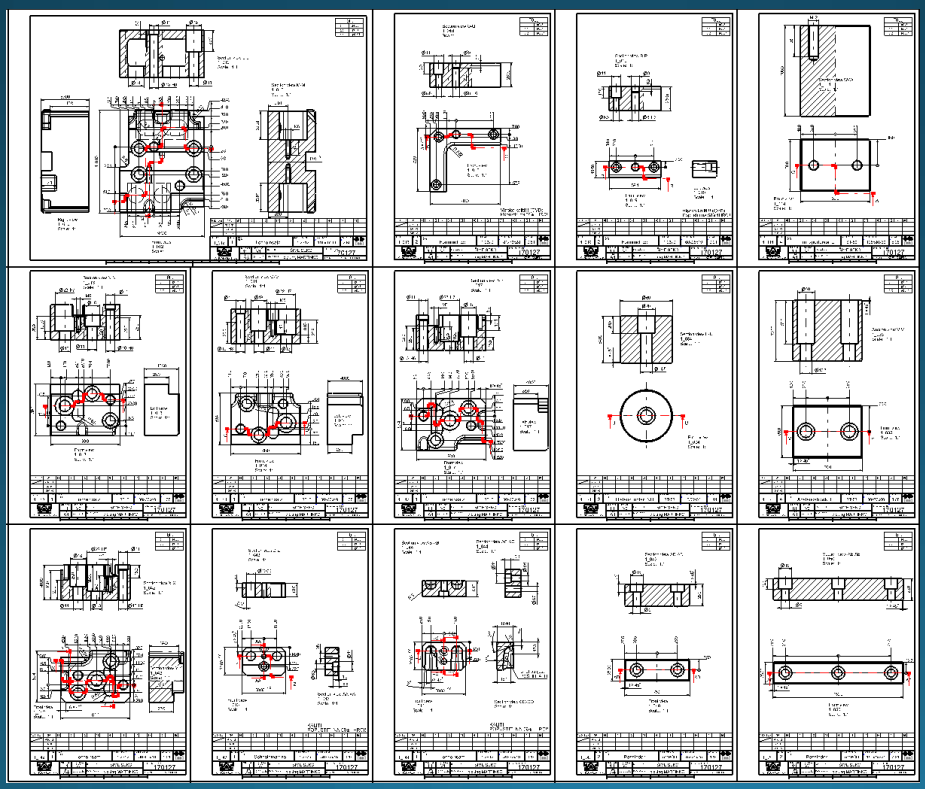




2D drawings and data transfer

- We provide complete 2D drawings of tools for our customers. 2D drawings include isometric views, plan views, and all part drawings.
- If our customer does not use a Catia software program, we can export 3D data in STP format. In addition, 2D drawings can be exported in DXF/DWG format.
- Solid Design's FTP server can be used for data transfer.





Curious to know who you are dealing with?

- In addition to technical know-how, outsourcing services must excel in clear, concise and polite communication. We pride ourselves on measuring each client's situation and tailoring our communications using telephone, email, MS-Teams, Viber and FTP services.
- We strike a balance between bombarding our customers with irrelevant questions and equally worrying lack of critical questions. Solid Design d.o.o. takes its role as an outsourcing partner seriously and never looks for excuses to postpone the project or shift the blame to others. We work seriously to make you, your company and your project successful.

Our Team:

Domagoj Vlastelica, born 1978th in Zagreb, where he graduated at the Faculty of Mechanical and Naval Engineering (FAMENA). From 2005 he was a full-time employee at "Končar Alati" where he worked as a technologist and CNC programmer on 3-axis milling machines in CATIA V5 program. In addition to CNC programming, he also developed programs to improve production in Visual Basic programs. He joined Metal Produkt in mid-2007 as a designer of tools and fixtures for die casting, injection molding, aluminum forging tools and welding fixtures. In 2008 he returned to "Končar Alati" where he worked as a designer of sheet metal forming tools and continued to work on a VBA program to improve production, which will be successfully implemented in 2011. In 2012 he joined the "MSH Group" as Managing Director. In addition to his work as director, he designed tools for aluminum extrusion, plastic, rubber, zinc, magnesium injection molding, etc. In mid-2014, he switched to the Croatian sheet metal tool design company "Parametrik" as a tool designer and a year later as a method planner. At the beginning of 2018, together with his colleague Š. Seko, he founded the "Solid Design d.o.o." company, specialized in the method planning, simulations, production flows, transfer and progressive die designs.

Šime Seko, born 1980th in Zadar, where he graduated at the technical high school. During his studies at the University of Zadar, he was employed in the Croatian branch of the German company "K & H" from Gaggenau, which specializes in the design of tools for sheet metal processing in the automotive industry, and completed his education in Germany. After returning to Croatia; he continues to work in the company's branch in Zadar until mid-2009, when he goes to Zagreb and starts working in the company "Končar Tools" as a designer and project manager. At the end of 2012, with the aim of further education and knowledge acquisition, he switched to the company "MSH Group" to design injection molds for plastic, rubber, zinc and bakelite. He was twice in the role of a project manager at the Audi headquarters in Ingolstadt. In mid-2014 he switched to the Croatian company for stamping tool design "Parametrik" as a designer, and after a year he took over the position of project manager. He is also a long-term outsourcing partner of "KM-Alati" from Pisarovina and "Siga-International" from Sveta Nedelja, for which he supplies tool designs.

Thank you for your patience.
Feel free to contact us.
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For more information, please visit: www.solid-design.net