

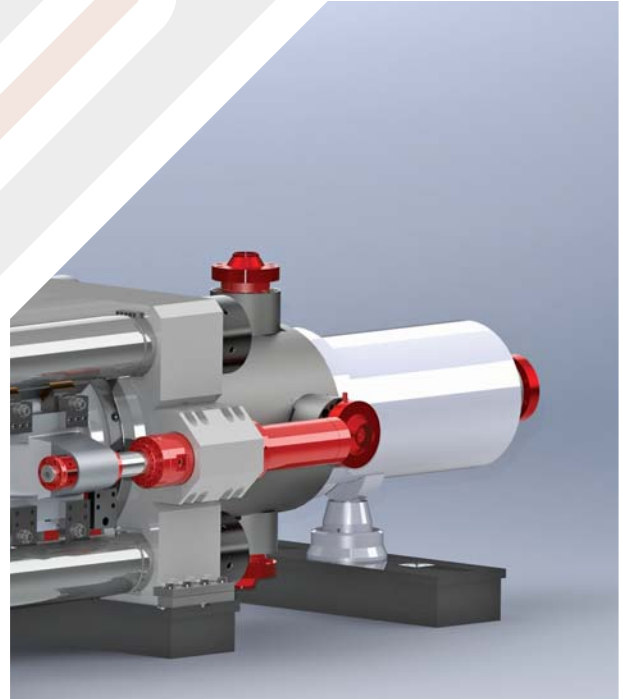
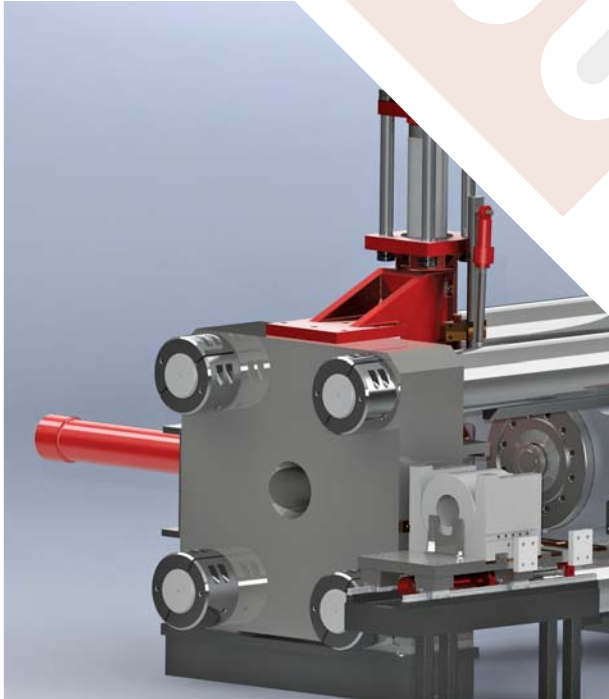
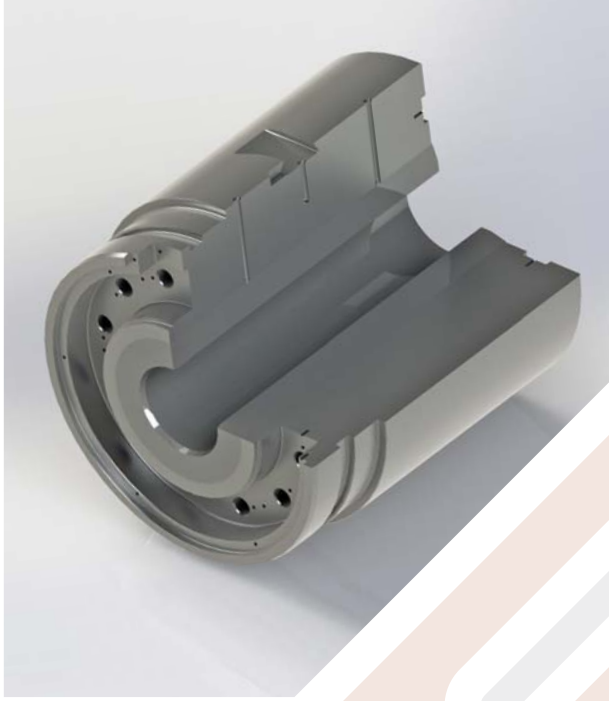


EXPRESS
MÜHENDİSLİK





EXPRESS
MÜHENDİSLİK





EXPRESS
MÜHENDİSLİK

About Us

Express engineering established in 2014 under the framework of TÜBİTAK (The Scientific and Technological Research Council of Turkey) entrepreneurship support program, aiming to provide the best services in the field using advanced technology and innovation oriented projects.

Our company is capable to follow and complete all machine production processes from design to usage. Express Engineering is the first company established as an integrated manufacturer of presses.

Our projects are thoroughly planed and studied from the start idea to the last process, and by working with professional people in the industrial universities we benefit from their knowledge and experience as well. This enables us to give end-to-end solutions to our customers.

Express engineering's most important feature that makes it different from other companies in the sector is the highly expert engineers and technical staff. Our company follows and uses all the innovation developments in the field to ensure the best result of manufacturing. We aim to improve the standard and quality of production by following an innovation system through our R & D work in order to complement the ever-growing demand nationally and internationally.



EXPRESS MÜHENDİSLİK
VE MAKİNE SANAYİ DİŞ TİCARET LTD. ŞTİ.



Engineering & Inspection

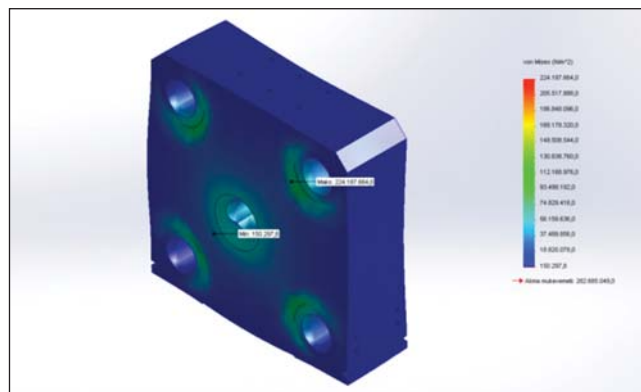
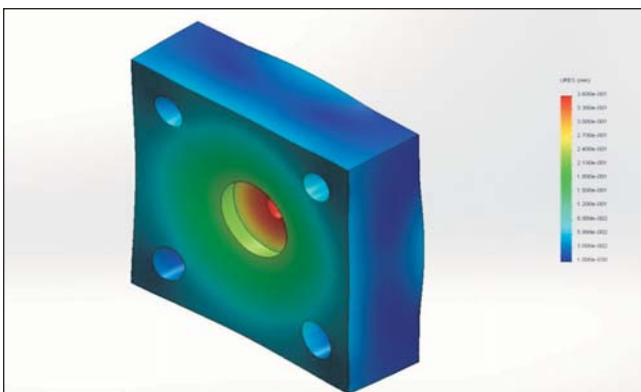
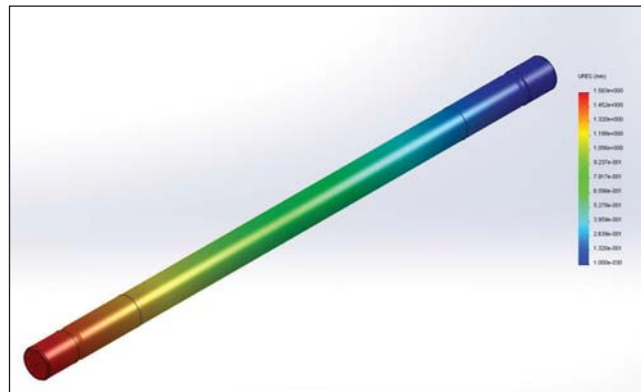
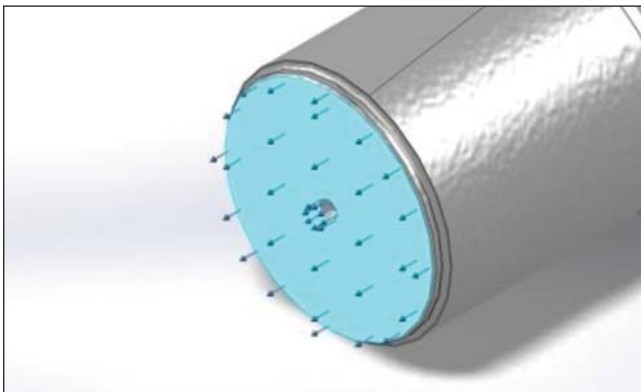
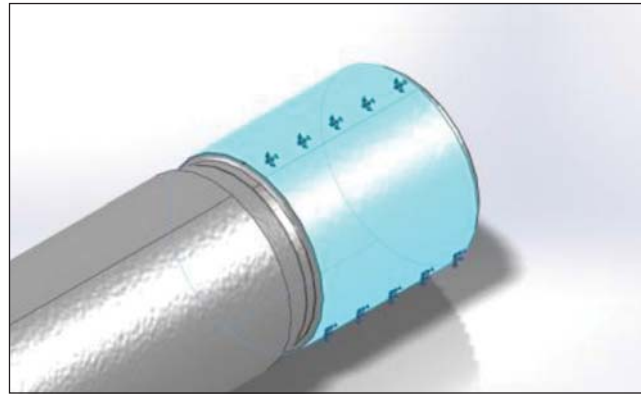
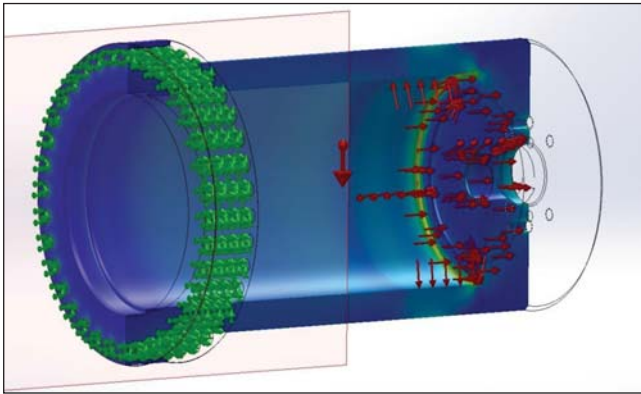
We are specialized in manufacturing metal extrusion press machines and equipment's. In addition to designing and manufacturing new machines; we provide consulting, analyzing and maintenance revision services.

All of the engineering processes are done by a computer aided with 3D modelling and simulation program. Before manufacturing; our engineers use finite element method (FEM) and 3D modelling. It is very importance to select the right materials. We analyze the part according to the place of use, after that we select different materials to test and analyze their values of strength, durability and thermal expansion. The next step is to compare the results and chose the best material for the part. The following step is to compare the last values with manufacturing conditions and then select the best and cost effective one to be manufactured considering environmental condition. The last process is the drawing of technical design and give it to manufacturing.

Our works include:

- Aluminum Extrusion press (3-4-5-6-7-8 inch) with different billet diameters.
- Hot cutting machine
- Die Separator
- Billet Loader
- Conveyor line
- Container and container liner
- Container loader
- Tie Rod
- Stem and dummy blocks
- Cassette and cassette changing stand
- Butt Shear and Shear Blade
- Die Ring and Bolster

Analysis and Engineering Applications

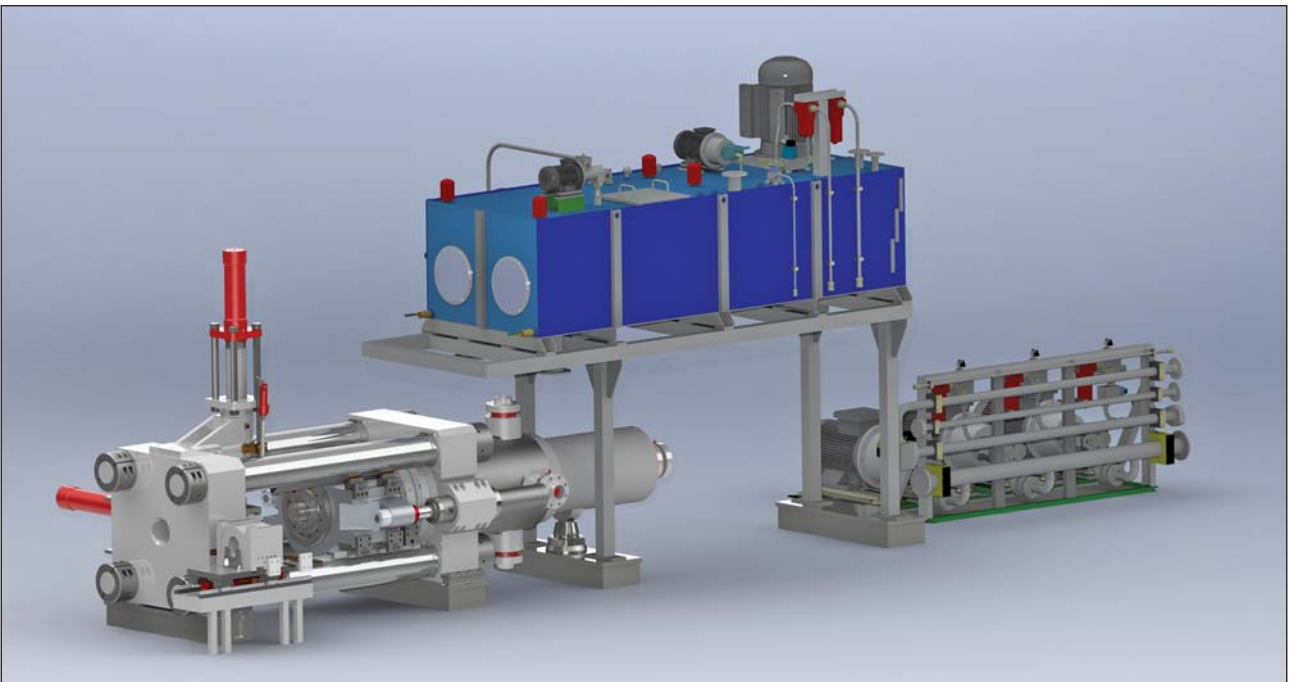
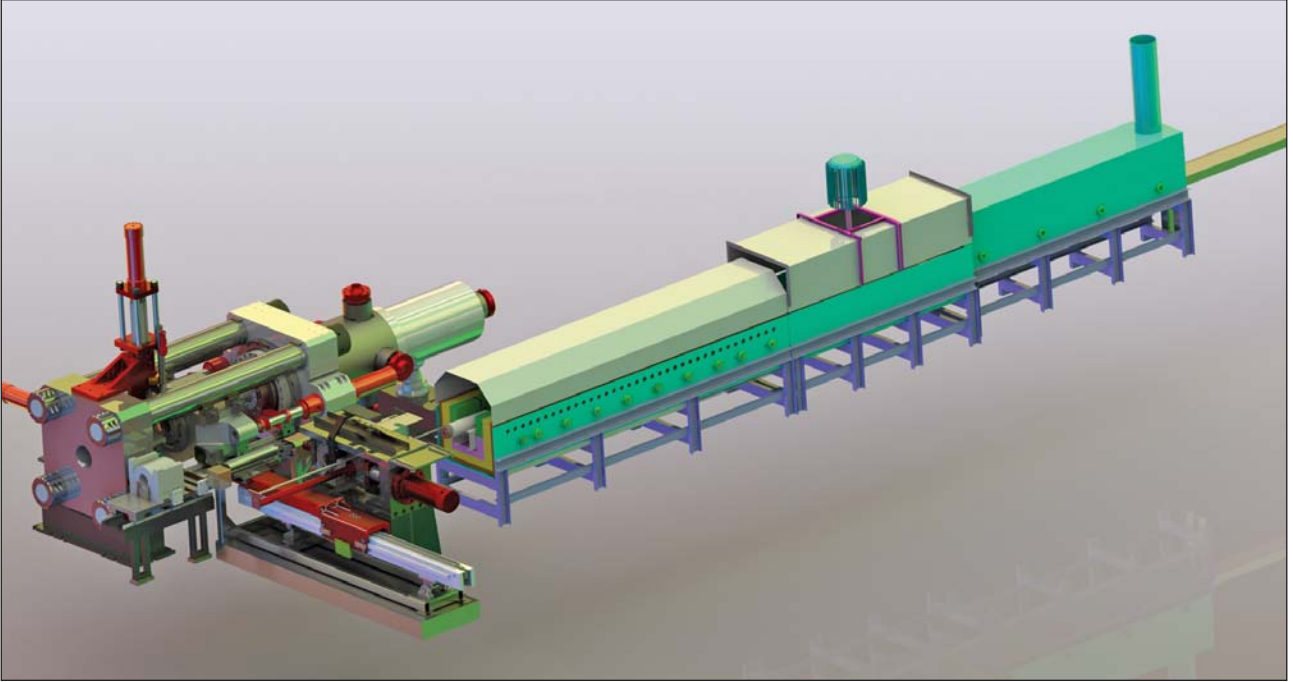




EXPRESS
MÜHENDİSLİK

Products

1. Extrusion Press Line





Extrusion press Express Mühendislik is capable of manufacturing all lines of extrusion press machine like

- Double effect piston designed extrusion systems
- Floating piston designed extrusion systems
- Tandem piston designed extrusion systems

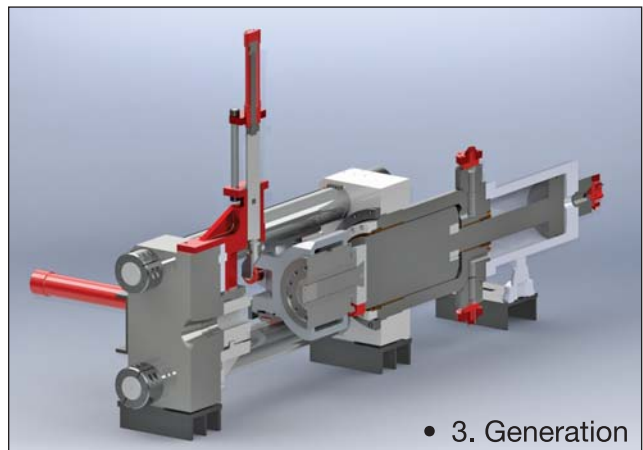
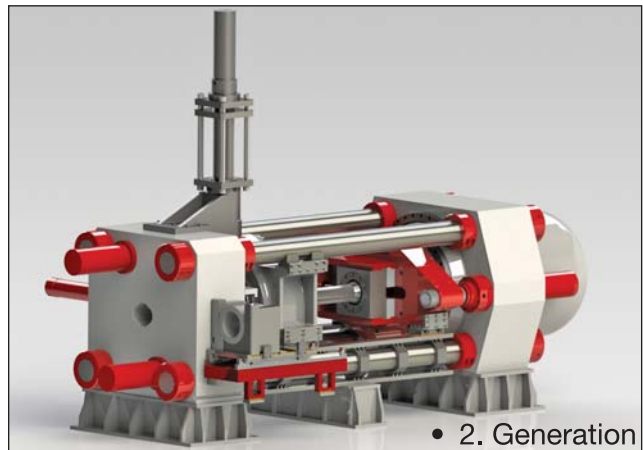
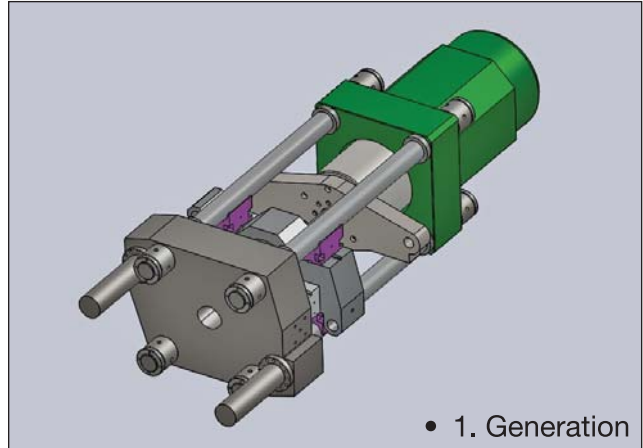
In addition we have developed a forth version which is an improvement of the Tandem piston system and driven by a servo motor. Our new model is approved and under manufacturing process with the support of TÜBİTAK (The Scientific and Technological Research Council of Turkey).

TANDEM PISTON SYSTEM with SERVO MOTOR TECHNICAL DETAILS

- “4 inch Billet
- Prestressed
- Servo Motor Driven
- 600 UST Metal Extrusion Press

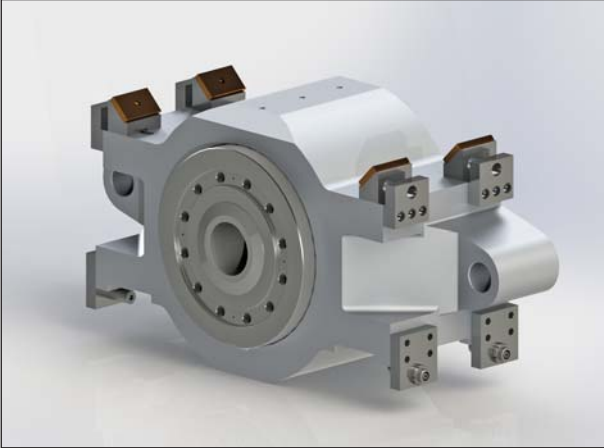
SPECIFICATION:

- 75% total energy saving (A+++)
- Faster Production
- Less dead (idle) time
- More powerful in a smaller place
- Less hydraulic components
- Silent Working





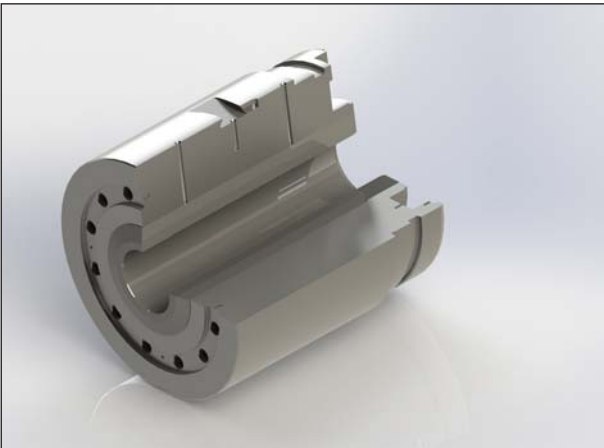
2. Container Group



Container Group

One of the essential parts of the press, holds the billet as it is pushed through a die at one end while under pressure from a dummy block and stem entering at the other end. The container resides in the container housing and is lined with a liner which holds the billet in place while it is being extruded.

The container material is chosen to provide toughness, high strength, and good ductility when warm. Container holders generally are made of welded construction or casting.



Container systems could be internally heated where the heating resistances are inside the container itself or externally heated where the resistances are positioned in the container holder.

During the extrusion operation containers are exposed to very high temperature and pressure; to ensure the continually work of the press, containers need regular care and maintenance.



Container liners main function is to carry the billet, containers are made of AISI H11, and liners are made of AISI H13 or DIN 1.2367 to minimize deformation by time due to carrying the heated aluminum.



3. Stem Group

Stem and dummy blocks are small but the most important parts of the press, they affect the press productiveness. Over time, because of high pressure and temperatures it wears of and must be replaced periodically.



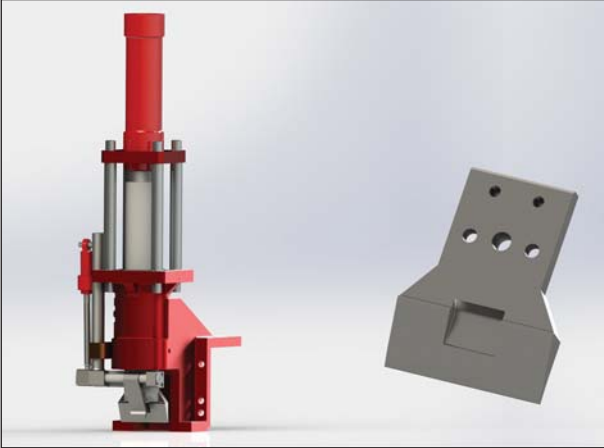
4. Tie Rod

Connects the back and front press platen, to reduce the load on the front platen of the press.





5. Butt Shear and Shear Blade



Used to clean the remaining scrap from the die, the shear blade should be changed periodically because it is the most deformed part.

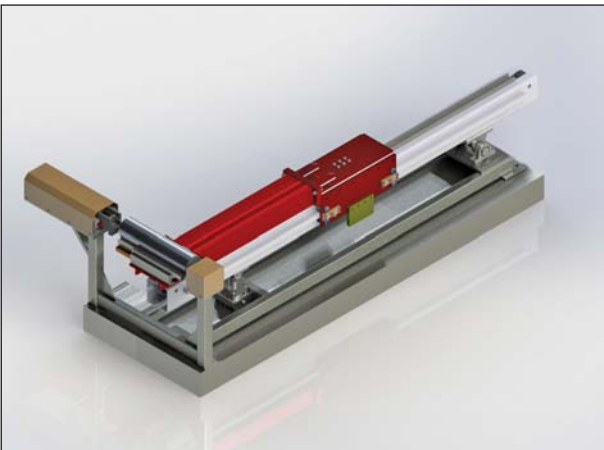


6. Cassette and cassette changing stand

In order to save time while a cassette is used on the press, a second cassette is on a stand is used to mold changing

7. Die Holder and Bloster

Accessory parts that help during die transfer



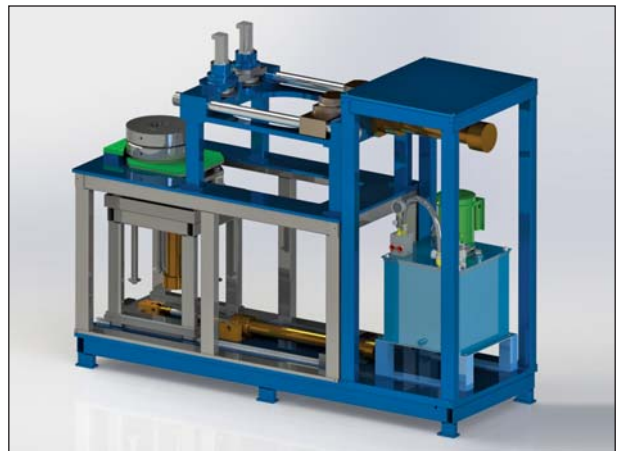
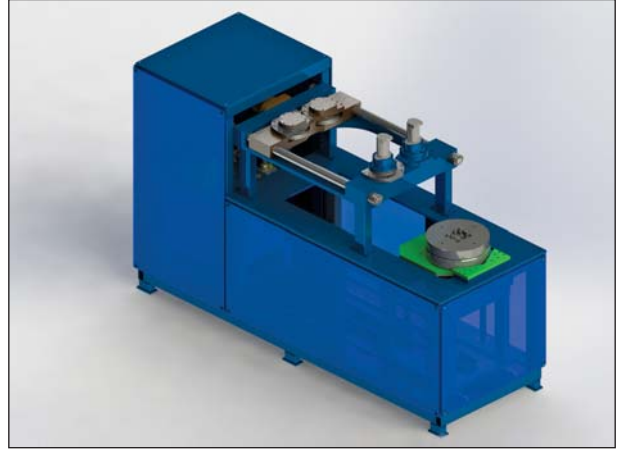
8. Billet Loader

Loads the billets on the hot cutting machine in the desired size



9. Die Separator

Our research shows that workers have a lot of difficulties in mold separation processes, in order to ensure the safety of workers and a faster results we have developed a full automatic mold separation machine.





EXPRESS
MÜHENDİSLİK

