

EMAK REFINING & RECYCLING

SAVING TIME IN MANUFACTURING HIGHER-QUALITY
PRODUCTS WITH SOLIDWORKS SOLUTIONS



By standardizing on SOLIDWORKS Premium and SOLIDWORKS Flow Simulation, Emak Refining & Recycling has been able to cut their costs by a significant 40 to 50 percent.

Challenge:

To position itself well against its competitors, Emak Refining & Recycling needed to manufacture more attractive, higher-quality products within a shorter timeframe.

Solution:

Implement SOLIDWORKS Premium and SOLIDWORKS Flow Simulation.

Benefits:

- Increased production speed by up to 50 percent
- Gained marketing advantage with SOLIDWORKS Render feature
- Increased profitability

BRIEF HISTORY

Emak Refining & Recycling was founded in 1978 in the Çemberlitaş district of Istanbul, Turkey, and moved to larger manufacturing facilities as the company grew. With production now based in its factory in Avcılar, the company exports to more than 60 countries around the world. Since its founding, Emak Refining & Recycling has produced many machines for use in refining precious metals and recycling catalytic converters. In addition, the company has manufactured products for the mining and jewelry industries, induction furnaces and bar casting, waste water treatment, and fume treatment systems.

GETTING ACQUAINTED WITH SOLIDWORKS

Emak Refining & Recycling CEO Mehmet Akidil explains, "At the rate we were growing, it wasn't possible to continue with our existing setup. Manufacturing without taking advantage of technology would have meant that we remained at the same level as our competitors, and we certainly didn't want that. Our research concluded that SOLIDWORKS® was the best program in the sector and we started using it soon after being introduced to Metropolsoft (our distributor). Once SOLIDWORKS was introduced, we created a professional drawing team. As a result of the success we had at the design stage, we started using SOLIDWORKS with our CNC machine tools."

Akidil points out that when the company first started, it was using charcoal and the old drawing method. He explained how different it was being able to see the complete, detailed design of an entire machine on a computer screen. The CEO sees SOLIDWORKS as the cornerstone of the factory. Because it is integrated with the company's accounting software, it can calculate the cost of raw materials for each machine unit, which parts the company has in stock, and can also take advantage of other related features. SOLIDWORKS brings significant benefits to the company's operations. Akidil concludes, "In short, we couldn't work without SOLIDWORKS."

LIFE BEFORE SOLIDWORKS

Akidil explains the company's difficulties before they started using SOLIDWORKS: "We couldn't identify whether even as few as two of the most basic components were properly aligned. I believe that SOLIDWORKS has had a huge effect on the development of the manufacturing sector." He continued, "Using SOLIDWORKS, we can bring to life the project drawn on the computer without any errors. The program tells us if the project we are working on is unfeasible and this saves us additional costs. Prior to SOLIDWORKS, a lot of our machines went into the scrap heap. SOLIDWORKS has seriously reduced our prototype costs, saving us both time and money. An increase in costs automatically pushes up the price of the machine, making technology more expensive for people in our country. Since we started using SOLIDWORKS, our costs have fallen by 40 to 50 percent, which has resulted in a significant increase in our profitability."

"If we compare SOLIDWORKS to other programs, it's much faster than its competitors. From design to the final production stage, SOLIDWORKS is the infrastructure on which all our processes are carried out. This saves a huge amount of time which has a positive and direct result on our costs."

— Oğuz Yakmaci, Mechanical Engineer

CLEAR ADVANTAGES OF USING SOLIDWORKS

Emak Refining & Recycling Mechanical Engineer Oğuz Yakmaci is responsible for R&D and manufacturing. He describes how the company uses SOLIDWORKS: "If we compare SOLIDWORKS to other programs, it's much faster than its competitors. From design to the final production stage, SOLIDWORKS is the infrastructure on which all our processes are carried out. This saves a huge amount of time, which has a positive and direct result on our costs. The Assembly feature of SOLIDWORKS makes our work considerably easier, especially for larger machines, while the Render feature allows us to show the machine to our customer before it is actually manufactured. Render really makes the marketing department's job easier. The Sheet Metal feature is very beneficial in laser-cutting processes. Using weight calculations, we can see all data relating to machine weight, dimensions, etc., and we can pass that information on to our logistics department to facilitate its work in turn."

In addition, Yakmaci points out that SOLIDWORKS is used for static analysis, for areas in which errors tend to occur, or for oversized applications to provide intuitive definitions and increase quality performance. The program is also used to calculate geometric tension under load, deformation, and other safety factors to evaluate changes in design. He continues, "Our maintenance agreement ensures that we can continue to create the best designs with new SOLIDWORKS features. With this in mind, we have technical information requirements with regard to Metropsoft."

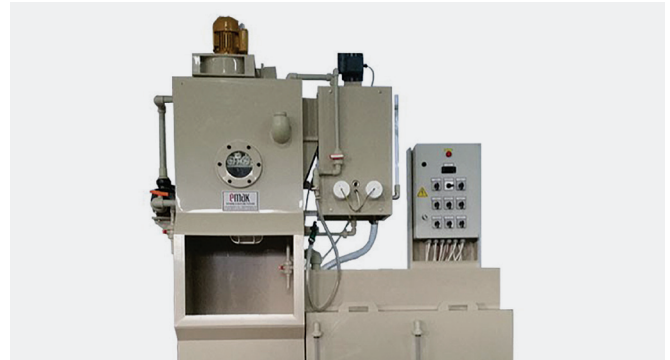
LEADING THE WAY WITH SOLIDWORKS

CEO Mehmet Akidil believes that SOLIDWORKS has been the key to the company's success and offers these summary comments: "You need to follow technology very closely in our sector. Technology means 3D drawing and when someone says 3D drawing, I immediately think of SOLIDWORKS. Any company that doesn't think in this way is sure to lose out to its competitors. SOLIDWORKS is one of the most significant tools in preserving our position as a market leader. It is thanks to SOLIDWORKS that we have reached and are able to retain our current market position."

Focus on Emak Refining & Recycling
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Mehmet Akidil, CEO of Emak Refining & Recycling, considers SOLIDWORKS one of the most significant tools in preserving their position as a market leader.

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