



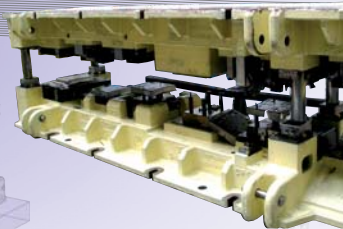
plans, mid-term, to hire a simulation specialist and install simulation software to simulate the stamping process before layout in order to ensure the proper design layout •]

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About Kirchhoff Polska

Kirchhoff Polska, founded in 1998, is a member of the Kirchhoff Automotive Group with two plants in Poland. The company supplies the European automotive industry with steel and aluminum stamped parts and welded parts for all the structural needs of a car with the exception of those related to body in white. Kirchhoff Polska decided to implement a tool shop in 2001 for the production of medium and large progression dies, transfer tools and tools for manual press lines, an entirely new activity for the young Polish branch of Kirchhoff Automotive. Today this new department has 40 employees bringing the subsidiary's total resources to over 700.

www.kirchhoff.pl



with the quality of the software. He knew that this was what the company needed for its tool and die activity. In addition, most of the company's OEMs use CATIA, which makes it easier to exchange data. In effect, by receiving native CATIA models from its customers it eliminates the need for data conversion, which is often a tedious and error-prone process.

In addition to its 5 seats in the tool and die department, Kirchhoff Polska has 3 CATIA seats for the design of welding and control jigs in its engineering department, responsible for designing and producing stamped parts for the automotive industry.

"CATIA is state of the art software," comments Bogdan Kiebzak. "Our designers previously used another CAD system. However, the introduction of CATIA was a big step ahead for them. CATIA offers considerable power, flexibility and intuitiveness. Our engineers are able to design very quickly thanks to a standard parts library

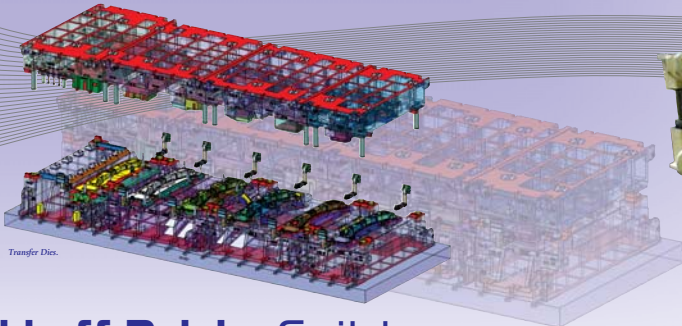
where they can easily find already created parts that considerably reduces design time and automates our design process."

In effect, with just a click of the mouse, designers can insert standard parts from the library to rapidly create the 3D models. The company also uses CATIA Machinist to create the CAM programs for its milling machines. "It is very important that we use the same CAM software as our CAD system since this eliminates problems linked to transferring data to our milling machines", said Bogdan Kiebzak. As for machine postprocessors, they were created once and stored for reuse whenever needed.

LEARNING CATIA WAS EASY

Tool and die designers are among the most highly skilled workers in the manufacturing industry. "A good die designer is difficult to come by", said Bogdan Kiebzak. "It takes years to acquire the necessary experience and skill. The easy part was having our designers learn CATIA. In just a short period of time, all five designers in our tool shop were up and running and, most importantly, productive with CATIA. In addition, business partners KS AUTOMOTIVE and CADSOL DESIGN POLSKA provided initial training and continue to provide consulting and support whenever needed.

Over the years, more and more data is accumulated and managed by the company's information system. The current operating system is no longer efficient and the company is planning to install a more efficient and rapid system like Windos® in the near future. The company also



Transfer Dies.

Kirchhoff Polska Switches into High Gear with CATIA

By Dora Laine]

Kirchhoff Polska produces stamped and welded parts for the automotive industry. By using CATIA for its design and manufacturing activities, it has reduced time to market, improved reaction time to customer change requests and increased the quality of its parts.

Prior to creating the die design activity, Kirchhoff Polska used to procure its dies via the German mother company from countries such as Germany, Spain, Slovenia. As its business grew, though, the company realized that it could no longer depend on outside suppliers; it was more cost effective to implement an in-house die production facility. By doing so, Kirchhoff Polska also gained in flexibility since its engineers are now able to introduce engineering changes requested by its customers faster and easier than if it were to request these changes of its suppliers.

REMAIN COST EFFECTIVE

Kirchhoff Polska provides stamped and welded parts to automotive OEMs such as Opel, Ford, VW, Daimler etc. However, most of its die business comes from the Kirchhoff Automotive Group in Germany. Kirchhoff Polska's main competition comes from companies in Germany, Czech Republic, Slovenia and Spain, not in Poland, which is not traditionally known for design and production of dies. Even though one of its major competitive advantages is employee salaries with wages generally lower than in Germany or Spain, the gap compared to these and other countries has nevertheless decreased over the years requiring the company to focus on other ways to increase its competitive advantage.

Kirchhoff Polska, therefore, concentrated on reducing time to market, shortening its design and production time and increasing the quality of its parts.

FROM ORDER TO PRODUCTION

When a customer sends an RFQ that includes die design for its automotive parts, Kirchhoff Polska must be attentive to price, lead time and quality if it wants to win the business. If Kirchhoff Polska obtains a tool order from a customer, it receives the CAD data in digital format for the part as well. Its designers use the 3D model of this part to start the design of the associated tooling. They define the different stages for the die development such as drawing, cutting and bending. Then they make a proposal for the production process of the part, which they send to their colleagues in Germany. If design changes are requested, Kirchhoff Polska implements all the modifications until final approval. Once approved, engineers begin die design using CATIA. When ready, the design is sent to Germany for final approval prior to ordering the material needed to produce the die.

The tool shop has 5 CATIA V5 seats, which the company installed and started using in 2001. At that time, Bogdan Kiebzak, Manager of the tool shop, discovered CATIA V5 and was impressed

Piercing station with cam.

