Laser technology enables the Czech manufacturer of office furniture, Hon-Nabytek s.r.o., to also offer job shop services

# Aesthetic and laser cutting



We are in the suburbs of Opava, in the Czech Republic, a few kilometers away from the border with Poland. The road we took to get to Opava was surrounded by a beautiful natural landscape. In the falling snow, we drove several kilometers through forests and little valleys, without seeing anyone except for a deer that suddenly, decided to cross the road in front of our car and forced us to come to an abrupt stop.

It is not surprising, giving the surrounding environment that Hon-Nabytek started its operations and grew in the wood furniture industry. As the plant manager and partner Mr. Jan Kahle explains, the company was founded back in 1924 and, over the years, has specialized in the production of office furniture that, currently, is manufactured and sold under the brand name HOBIS.

The HON j.s. is a group of companies which includes: Hon-Nabytek s.r.o., Nabytek EXNER s.r.o., located in Praga an office furniture specialist specialized, HON-KOV s.r.o, a metalworking production plant that manufactures all the metal parts for HOBIS and EXNER. With an overall turnover of 350 M€ and its 170 employees, the group is the largest furniture manufacturer in the Czech Republic. Every week, the Opava plant alone, manufactures 100 t of furniture.

#### From wood to metal

In the office furniture manufacturing process, the early metal components were introduced to respond to the need for greater resistance and durability of some technical elements. These metal parts were initially purchased from outside suppliers but with the usual associated difficulties. Due to unsatisfactory precision and quality differences in identical batches, provided by different suppliers, complex internal re-work activities were necessary. One of the main problems was that, while wood parts were manufactured with CNC machines and therefore were extremely









precise, metal parts were produced manually. As a result, these components did not fit together like they were supposed to, especially where large and interconnected assemblies were involved. In addition, originally, the metal elements were only used to make the product structure stronger, thus they were not visible. However, over the years, they have gradually become very important for the aesthetic of the final product, and accordingly, their quality and precision have become a critical production need. Therefore, to satisfy this demand, the company has adopted laser technology.

## The adoption of laser technology

The adoption in 2006 of one LT120 laser tube cutting machine and one ADILAS for sheet metal cutting immediately resulted in important competitive advantages, such as greater precision, reduced production costs, and innovative furniture design. Thanks to the laser high-productivity rate, Hon-Nabytek was able to allocate part of its production capacity to the job-shop activity, which, today, represents about half of the company's total production. The manufactured parts are used in different market sectors, from the agricultural machinery production, a well-established sector in this area, to the general mechanical components production.

Laser technology has also contributed to the development of new ideas that soon will become reality; in fact, the company is planning to launch an innovative furniture collection which should guarantee an important competitive advantage over its competitors. The solutions adopted in the workshop, are not only extremely clever in terms of efficiency of the joints, but also extremely effective in terms of speed of the final assembly process.

### Tube and sheet metal finished products

The HON j.s. group is not particularly concerned about the current difficult economic situation. The group is used to double-digit growth rates (18% in the past years). Also in 2008, the company has grown, even if at a lower growth rate of 10%. While the furniture industry has been affected by the economic crisis, the job shop sector continues to grow. In this sector, a critical success factor consists in the ability to provide quality finished products by combining tube and sheet metal.

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