

Mechanical Engineering



Czech mechanical engineering is characterised by more than 150 years of tradition. In the past two decades, this significant domestic sector has experienced a process of restructuring resulting from changes in territorial structure and the structure of goods in terms of Czech exports. Mechanical engineering, however, continues to be a significant industry sector for the Czech Republic.

The Czech Union of Mechanical Engineering Technology (Český Svaz strojírenské technologie - SST) has been working for several years on European structures. More specifically, it has been a member of the prestigious international union of national associations of producers from 15 European countries known as CECIMO - the European Council for Cooperation in the Machine Tool Industry (Evropský výbor pro spolupráci v průmyslu obráběcích strojů).

Statistics for the production and export of Czech machine tools and moulding machines clearly reflect several years of growth and the consequent downturn in 2009 when compared with the previous years of the conjuncture. In 2005, the Czech Republic exported machine tools and moulding machinery with a value of 9.72 billion Czech crowns, in 2006 the figure equalled 10.63 billion Czech crowns, in 2007 there was a sudden increase in exports totalling 13.98 billion Czech crowns and this trend ended with the start of the crisis in 2008 with a maximum total of 14.62 billion Czech crowns. This was followed by a downturn of 25% in 2009 when compared to 2008, with machinery exported from the Czech Republic having a total value of 11.185 billion Czech crowns. A significant share of these results was achieved by companies which are wholly or partially owned by foreign investors, who used the advantages offered by the government in the form of investment impulses and business incentive programmes.

When it comes to the volume of the production of machine tools and moulding machinery, the Czech Republic is the seventh country in Europe and the fourteenth country in the world. Czech machinery is reliable and the Czech Republic is able to apply the most up-to-date elements, just like its competitors. In recent years, the Czech Republic has mostly exported its production of machine tools and moulding machinery to Germany, China, USA, Russia, Poland and Slovakia. The largest importers to the Czech Republic in 2010 were Germany, Switzerland, Japan, Korea, the USA and Belgium.

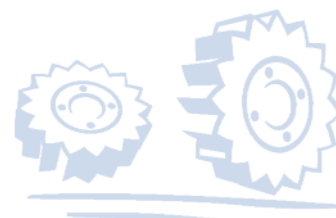
In the field of mechanical engineering, thousands of companies producing a wide spectrum of machinery, equipment and their components are active in the Czech Republic, most of which have introduced quality management systems, environmental management systems as well as safety and health protection management systems.

Traditional products of Czech mechanical engineering are not only machine tools and moulding machinery but also steam and water turbines and other energy facilities, the agricultural and food industries, manipulation and construction machinery and equipment, rail and other vehicles and transport means, production equipment for various industry sectors, textile and food machinery, electrical manual equipment and many others. Another important part is the production of various mechanical engineering components, parts and assembly units.

The most significant and successful producers of rail vehicles offering their products to many international markets include, for example, the ŠKODA TRANSPORTATION a.s. company. The Czech Republic has a long tradition when it comes to the production of tram vehicles. The manufacturing companies own the technologies, technical equipment and documentation



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needed in order to manufacture high-quality rail vehicles corresponding to the high demands associated with modern vehicles of mass municipal rail transport.

Aviation production is also one of the top fields in mechanical engineering. Owing to the use of the most recent knowledge of science and research as well as the technologies of the production processes and new materials, this is becoming the initiator of technical progress in a number of further areas. In the case of aviation products, several final producers of airplanes with an annual production of about 350 pieces are registered in the Czech Republic, while 80% of the production is designed for export. Other companies specialise in the production of aviation components.

The production of jet training and light war planes, regional planes, training and sporting airplanes, gliders, aviation components and recently also the progressively developing production of top light airplanes holds a significant position.

River and river-sea cargo ships, war ships, yachts, motorcycles and bicycles and hot air balloons are also produced in the Czech Republic.

Typical of companies working in the Czech Republic has currently become the orientation towards high-tech products requiring a highly-qualified labour force and a greater participation of science and research. Eight Czech technical universities prepare more than 6,000 students in various fields of mechanical engineering, information technologies and other related fields.

Products of Czech mechanical engineering are to be found all over the world and maintain a good reputation thanks to their fine quality, technical design and reliability. Many years of experience gathered by several generations of technicians and workers and the current high level of know-how is applied to their production.

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