More efficient working in case of small batches

BOY offers an optimal solution in case of frequent mould changes

Smaller batches and shorter delivery times are a real challenge for many injection moulding companies. Needless to say, the injection moulding machines have to be converted for almost every customer order. This requires - depending on the design of the injection mould - a significant amount of time and costs. The faster the machine can be converted, the sooner the order can be processed, thus increasing the efficiency of the production.

BOY offers a mould change system for its injection moulding machines. For the BOY injection moulding machines (XS, XXS as well as 25 E and 35 E) a cassette mould has been developed, which allows a significant reduction of the changeover time due to quickly exchangeable mould plates.

The cassette mould consists of a basic mould, into which the mould plates with the incorporated cavities are inserted. With the mould plates the appropriate ejector package for the cavities is pushed into the basic mould and the ejector plunger is automatically fixed. Due to the quick changing device by cassette, the machine can be converted to another moulded part in just a few minutes.

The cassette mould (with 3D-printed cavity insert) can be exchanged in a few simple steps.

This practical mould change system is increasingly used in prototype construction. Small batch sizes and frequent conversion are part of the day-to-day business. Printed mould plates, which are nowadays produced inexpensively and quickly and from different kinds of materials by modern 3D-printers, are becoming increasingly important.

If a mould part is injected and should / must be modified, just a new mould plate is required. The mould base frame can still be used and remains - perfectly aligned - in the injection moulding machine. The new or different mould insert has simply to be inserted and the parts production can start immediately. The costs for mould manufacturing can be significantly reduced and thus have a direct impact on the parts price. If the mould costs are lower, the converting work shorter and downtimes are kept to a minimum, the production costs of the moulded parts are correspondingly lower and make production more efficient.

Another aspect towards increased efficiency in case of small batch sizes is the use of smaller machines. Large injection moulding machines and moulds with many cavities are of a higher advantage for the large-scale production. Once set up, the machine should produce as long and as much as possible in order to recoup the higher costs of moulds and set-up costs. If there are several more compact machines in the production, orders with small batch sizes can be distributed much more flexibly. Lower mould costs and set-up times are the result. If the BOY mould change systems are used, the potential for savings and the effectiveness in the production of the injection moulding plants increase significantly.