

Press Release 07/2017

Neustadt-Fernthal, March 2017

BOY obtained another patent: Plasticizing unit of an injection moulding machine for micro injection moulding

BOY was granted a new patent so that the company extends its portfolio by another important division.

From the simple production of small parts to the production of precision and micro-injection moulding parts, the screw piston plasticizing unit with a diameter of 8 mm offers the ideal solution for micro-injection moulding and short dwell times.

For the first time at the last Fakuma the world premiere of the smallest screw piston plasticizing unit was presented.

Thus, BOY sets new standards in the serial production of micro parts and smallest parts as well.

The screw piston plasticizing unit scores with a significantly shorter dwell time of the plasticized material in the screw channel without pre-plasticizing.

With a pitch volume of only 1.9 cm³ the BOY XS offers with this plasticizing unit a big advantage in the processing of thermally sensitive materials.

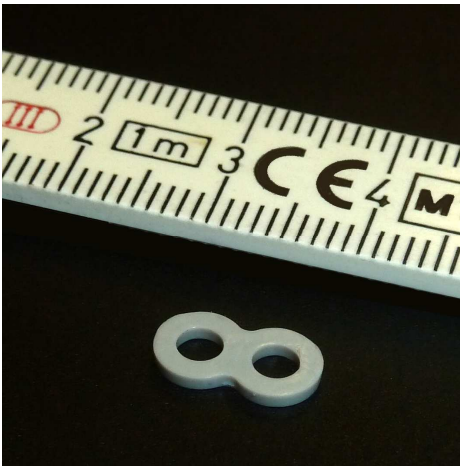
For example, when producing micro-osteosynthesis plates (see photo) with an injection volume of only 0.06 cm³ and a part weight of 0.078 g on a BOY XS, the material PBT remains in the plasticizing unit for only about 5 minutes. Compared with 12 mm diameter screw the dwell time is reduced by more than 75 (!) per cent and in case of a 14 mm diameter screw by approx. 82 (!) percent.

Reduced dwell time due to lower pitch volume

Short dwell times of the material within the plasticizing unit and a more gentle material processing after the First in - First out offer advantages in the processing of temperature-sensitive materials.

The range of applications covers medical technology, automotive and electronics as well as optics and microfluidics.

The 8 mm plasticizing unit was included in the BOY product portfolio as a supplement to the BOY XXS and XS.



Photo(s): > Micro-Osteosynthesis plate with a part weight of only 0.078 g;
Certificate of patent