

Press Release 18/2010

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K 2010: Strong upward tendency at BOY

"The K-show was very positive for BOY." According to Klaus Geimer, BOY's Director of Sales & Marketing, "the number of visitors to our booth, the positive meetings and the resulting quotes and orders exceeded our high expectations. Visitors were clearly impressed with our booth design and product presentation".

With the "GREAT MACHINES – compactly designed" slogan, BOY presented sixteen machines at K 2010 including the ultra-compact BOY **XS** (clamping force 100 kN), the full range of BOY insert moulding machines and the BOY 90 E (900 kN clamping force) equipped with a servo-motor pump drive.

BOY 35 E

The most prominent BOY machine at the K 2010 was the significantly enhanced BOY 35 E with a 350 kN clamping force of 350 kN.

The newly enhanced BOY 35 E will be equipped with a servo-motor pump drive. The heart of the machine is a synchronous servo motor with gear pump. An electronically controlled converter regulates the motor.

The pressure and quantity nominal values are set via the Procan ALPHA control. The actual values are measured simultaneously and regulated in a closed loop.

A converter and its special software perfectly execute the complex requirements of a highly dynamic pressure and speed control.

Thus, the pump speed is always matched to the requirements of each cycle step. Between the “end of dosing time” and the “end of cooling time” the motor and pump stand still – using zero energy.

For many applications the energy consumption is so low that additional oil cooling is not required.

Due to its design, the servo motor pump drive has a higher movement dynamic, which leads to shorter cycles and higher part quality. An additional advantage is a significantly lower noise level.

The injection units of the BOY 35 can be swivelled out and therefore reduces the time required to change the plasticizing cylinder and nozzle.

The footprint of the machine was further reduced, so at only 1,9 m², it is the smallest in its class.

Also new to the BOY program are the new BOY 35 E HV, which is designed for parting line injection, and the BOY 35 E VV insert moulding machine. This compact machine for over-moulding insert parts is designed with a footprint of only 1,7 m².

BOY 55 E und BOY 90 E

Additional machines in the BOY E-series with servo motor pump drive include the BOY 55 E and BOY 90 E with 550 and 900 kN clamping forces respectively.

The BOY 55 E presented a hybrid version with a double pump for simultaneous ejection and a servo-electric screw drive. Screw caps were produced with very short cycle times.

The BOY 90 E produced fuse boxes from ABS with a shot weight of more than 200 grams. The energy saving feature of the BOY E-series machines was clearly demonstrated with this application.

BOY XS

Nine machines from the newly introduced BOY **XS** series were shown at K 2010. With this machine type micro and small parts with injection volumes between 0,1 and 8,0 ccm can be produced automatically, precisely and highly efficiently. The BOY **XS** is available as a horizontal and insert moulding machine. The footprint is only 0,8 and 0,6 square meters respectively.

During K 2010 the BOY **XS** series presented itself as an ultra-compact, versatile machine with loads of interesting applications. An ideal integration of periphery and handling equipment was the main focus of the shown machines. Without requiring additional footprint / floor space periphery for drying, conveying and colouring of plastic material can be positioned in a space saving way.

Due to the modular production process, the precision and efficiency of the BOY **XS** is increased significantly. A clean room application produced mini osteo-synthesis plate with a weight of only 0,1 gram and demonstrated the suitability of this machine for micro-injection moulding. The completely clean-room compliant injection moulding machine ensures production at clean room class 6, ISO 14644-1 (this corresponds to former class 1000).

Proven technology

The production of thermoset parts was shown on a BOY 22 A (220 kN clamping force)

The BOY 22 A is a technically mature product and the design has remained almost unchanged for decades.

Insert moulding machines

Another BOY speciality are its insert moulding machines. On one BOY **XS V** and one BOY **35 VV** interesting insert moulding applications were shown. The fixed lower platen prevents shifting of the inserted part during closing. Further advantages are the free accessibility of the mould and the possibility to position automation devices on the machine frame in a space saving way.

Alfred Schiffer, Managing Partner of BOY summarizes: “The patented Procan ALPHA ® control system and the E-series with the servo-motor pump drive enables BOY to concentrate on the technologies that offer the most customer benefits. We have been able to offer these innovations at even more attractive prices.”



Photo(s): > The new BOY35 E - in front of the BOY booth