

## Press Release 07/2009

New "E" series by BOY.

More economical. Quieter. Faster. More precise.

Economic operation is the theme for many companies. Today an even greater focus must be put on the costs, so the timing of BOY's new BOY 55 E and BOY 90 E injection moulding machines is perfect. Precious energy can be saved with each cycle. Compared to current technology, the "E" series machines reduce energy consumption by more than 50 %.



(Illustration: BOY 55 E and BOY 90 E)

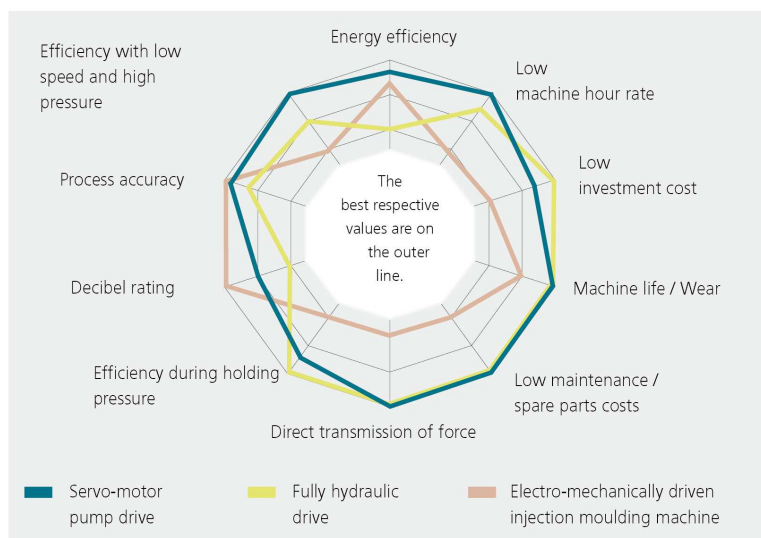
This savings is enabled by a servo-motor pump drive. The speed of the motor is only as high as the respective cycle phase requires. At all times, the motor is performing in an optimum, energy-efficient way.

Compared to fully hydraulic injection moulding machines with electronically controlled variable displacement pumps, the drive energy is reduced by more

than 50 %. The energy requirement is even lower than that of electro-mechanical machines, which incidentally have a markedly higher connected load. The comparative energy measurements that were carried out under trial conditions in the BOY demonstration and test showroom provided the evidence for the savings potential mentioned.

Further advantages of the new drive technology are a 20 % reduction of the noise level, as well as improvements in precision and dynamics. Extensive repeatability measurements showed a maximum deviation in weight of only 0.115 % from the average value. Due to the short response and low inertia properties of the servo-motor pump drive, the operation of the BOY injection moulding machines is more dynamic and agile.

By using this new drive technology, it was possible to surpass the positive technical features of electro-mechanical machines without acquiring their disadvantages such as investment cost, spare parts cost, wear, and high connected load.



(Illustration: Web diagram)

This diagram illustrates the advantages of the servo-motor pump drive in direct comparison with other drive technologies. The combination of advantages clearly speaks in favour of the servo-motor pump drive featured on the new "E" series by BOY.

Photo: > BOY 55 E and BOY 90 E

Diagrams:> Comparison of drive concepts