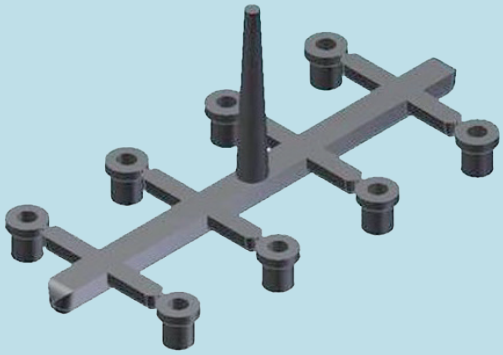
BOY®
Spritzgiessautomaten

BOY Micro injection moulding

Reduce manufacturing costs + improve process

Example: Production of small bearing sleeves

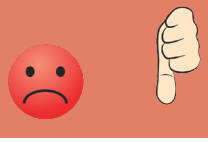
Machine: 25 to.



8-cavitity mould
Sprue system not balanced
and oversized

Weight of moulded part:	0,026 g
Sprue weight:	3,81 g
Shot weight:	4,018 g
Sprue percentage:	94,8%
Material requirement/pcs.:	0,502 g
Cycle time:	17 sec
Energy requirement:	0,643 wh/pcs.
Production output:	1694 p/h
Material costs/1000 pcs.: (Assumption: 18€/kg)	**9€**

- uneven cavity filling
- high sprue rate



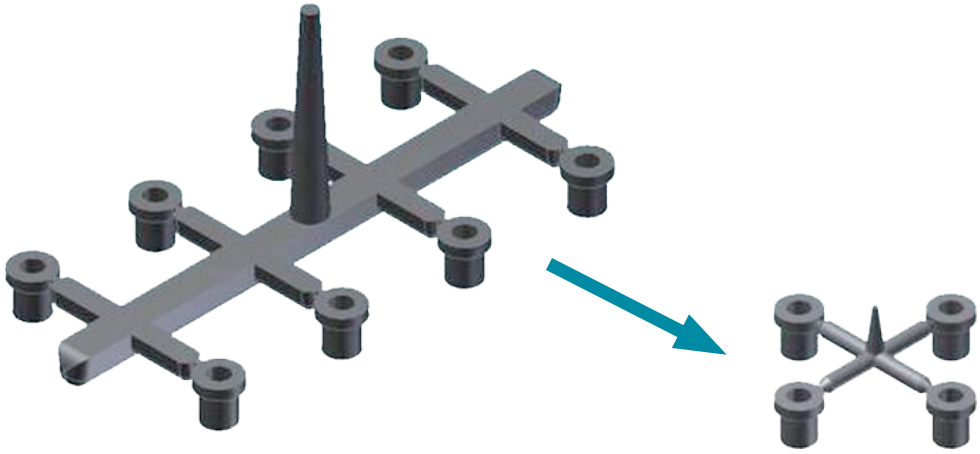
Machine: BOY XS E

4-cavitiy mould
Sprue system balanced and
volumetrically adjusted

Weight of moulded part:	0,026 g
Sprue weight:	0,38 g
Shot weight:	0,484 g
Sprue percentage:	78%
Material input/pcs.:	0,121 g
Cycle time:	7 sec
Energy requirement:	0,613 wh/pcs.
Production output:	2057 p/h
Material costs/1000 pcs.: (Assumption: 18€/kg)	**2,17€**

- natural balancing
- almost no sprue
- Minimization of sprue waste

Comparison / result:



	Origin	Optimisation	Result
Machine	25 to.	**BOY XS E (10 to.)**	Machine costs -15% Energy consumption/pcs. -5%
Tool	8 Cavities	4 Cavities	Tool costs -50%
Material requirement Production costs	0,502 g/pcs. 9€/1000 pcs.	0,121 g/pcs. 2,17€/1000 pcs.	Material costs -76%
Cycle time	17 sec	7 sec	Production output +21%

In addition, the space requirement of the machine is significantly reduced, which leads to a further high savings potential.

Video BOY XS E