

EXJECTION®



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First time ever: EXJECTION®

The first-ever EXJECTION® system combines the advantages of both extrusion and injection moulding technologies! With this new technology, long profiles and bars can, for the first time, be manufactured on a small injection moulding machine.

What used to be impossible can now be done thanks to EXJECTION®: manufacturing thin-walled profiles and bars with lengths up to 3 meters – on a small injection moulding machine with a clamping force of 500 to 1500 kN. The economic advantages are obvious: reduced equipment investment of up to 50 percent, and significantly lower manufacturing costs.

Mould in motion

In the EXJECTION® process, the cavity that is moulded in a slide is moved past the nozzle at the same time as the injection movement. The fluidity of the plastic melt needs only be sufficient to fill the profile cross-section. This permits the use of macromolecular, viscous types of plastic that are characterised by a very good profile of mechanical properties. The plastic part is injected into a mostly closed cavity. This mould concept opens new design possibilities, such as reinforcing ribs, screw bosses and end covers, as well as high-quality structured surfaces.

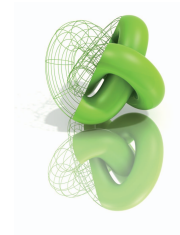
Broad range of applications

There is a wide range of applications for the EXJECTION® procedure. It starts in the construction and furniture industry, goes through the areas of automobiles and air transport and lands in the packaging and white goods industry. In short, everywhere long plastic parts are currently used.

EXJECTION® – injection moulding in a new dimension:

- > **Short flow paths:** In the EXJECTION® process, the melt does not have to cover the flow path; instead, the mould is simply moved past the nozzle. The current cross-section is always filled, with no hot runner and no cascade control.
- > **Minimum clamping force requirement:** Short flow paths result in reduced pressure requirements. This pressure does not affect the entire part, but only where filling is currently taking place. The clamping force of the injection moulding machine can therefore be lowered by up to 90 percent.
- > **Low processing pressure:** Only the cross-section is filled. More pressure is not required, regardless of the length of the component. This results in high precision.
- > **No weld lines:** Using EXJECTION®, sprue-caused weld lines covering the length of the component are a thing of the past. The mould is continuously filled using a single feed orifice. The result is significantly improved plastic parts, from a mechanical perspective, with an improved surface quality.
- > **Fit for films:** EXJECTION® also permits in-mould lamination of sensitive decorative materials. These can be anything from films and textiles to organic materials such as leather and wood. The connection is made gently and with no transmission of shear stress to the decor. The danger of washouts is reduced to a minimum.
- > **Material in form:** Very gentle processing of the melt is a positive characteristic of EXJECTION®. Low residual stresses and orientations, as well as a uniform distribution of filling materials and effect pigmentation, permit component characteristics to be implemented that fulfil even the most ambitious demands of designers and engineers.





EXJECTION®

is a co-operative
development of



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Your EXJECTION® contact

- > Additional technical facts and details
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